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AUTHOR Frymier, Jack; And Others
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ABSTRACT

The Phi Delta Kappa Study of Students At Risk assessed who is at risk, what puts students at risk, what schools are doing to help those students, and how effective these efforts are. Data were provided on at-risk students in 85 U.S. and Canadian communities by teachers who knew each student best and had access to a student's school records. This document describes the study and efforts to validate a scale for use in predicting risk among young people. It displays data on 21,706 students in 99 tables and 170 graphs, most of which are incorporated in 11 appendixes. Some data are included about how the 276 study schools were selected and how data about students were collected. Chapters describe previous reports of the study and the analysis approach; an attempt to assess risk among young people and to predict instances of further risk over a 2-year period; and a framework for interpreting data collected about young people in the 276 study schools. Appendixes, which comprise the major part of the document, include detailed instructions that researchers used to identify study schools; instruments used to collect information about principals, teachers, and students; an instrument used to collect follow-up information about 739 students 2 years later; an experimental version of a risk scale; and supportive statistical data. (RLC)

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FINAL REPORT
PHI DELTA KAPPA
STUDY OF STUDENTS AT RISK

VOLUME II

ED357106



JACK FRYMIRE



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**FINAL REPORT — PHI DELTA KAPPA
STUDY OF STUDENTS AT RISK**

VOLUME 2

**ASSESSING AND
PREDICTING RISK
AMONG STUDENTS
IN SCHOOL**

Jack Frymier

with Larry Barber, Ruben Carriedo, William Denton,
Bruce Gansneder, Sharon Johnson-Lewis, and Neville Robertson

Phi Delta Kappa
Bloomington, Indiana
1992

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VICTORIA VOELKER

Edited by
DEBORAH BURNETT STROTHER

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PREFACE

This book is a report of a study of young people at risk. Volume 1 of the final report (*Growing Up Is Risky Business, and Schools Are Not to Blame*) and an earlier monograph, *A Study of Students At Risk: Collaborating to Do Research*, describe in narrative form how Phi Delta Kappa came to study students at risk and what the data mean.

Volume 2 (*Assessing and Predicting Risk Among Students in School*) describes our efforts to validate a scale that might be used to predict risk among young people, and it displays the data collected about 21,706 students and the analyses in tabular and graphic form. Volume 2 includes enough narrative to help you make sense of the graphs and tables included here, but for complete understanding, you will need to read volume 1.

Some information is included here about how the 276 schools involved in the project were selected and how data about students were collected. For complete information about the technical procedures of the study, see *Manual of Instructions for the Phi Delta Kappa Study of Students At Risk*.*

Briefly, the Phi Delta Kappa Study of Students At Risk was accomplished by local chapter members of Phi Delta Kappa working in 85 communities across the United States and Canada. The study was conducted in 276 schools by professionals who, after intensive training, followed a standardized procedure of data collection. Information about students, which this volume presents, was provided by teachers who knew each student best and who had access to a student's records in the school.

This publication is meant to be a reference volume. The tables and graphs included here add a dimension to the interpretation that is not obvious when the information is portrayed in narrative form. In fact, the title for volume 1, *Growing Up Is Risky Business, and Schools Are Not To Blame*, emerged following a careful review of the material presented here in appendix D as tables 10 through 43 and appendix G as charts 1 through 170.

Many people blame schools for problems in society. When the Russians launched Sputnik, America's schools were singled out for blame. When the economy slipped, some people suggested that it was the schools' fault. Some have even argued that crime, drug abuse, and teenage pregnancy all increased because the school was not doing its job adequately.

Everyone knows, of course, that schools have not caused all or even most of the problems that children have to deal with every day. For example, the school does not cause some children to go to school hungry every morning. The school did not create conditions that require some children to go home to an empty house every day after school. The school did not cause an increase in the divorce rate or alcohol consumption or parental conflict or adolescent suicide. Those problems are all the result of conditions in the home and circumstances in the larger culture.

Educators have to deal with problems like these, which youngsters bring to school each day — and teachers, especially, work hard along that line — but schoolpeople did not create or cause most of the problems that confront young people today, nor can they solve those problems by themselves. The problems will be solved only if society changes, and changes in ways that enhance children's lives instead of endanger them.

*The manual is available from Phi Delta Kappa, P.O. Box 789, Bloomington, IN 47402-0789.

For example, crime affects some young people in America in various ways — as perpetrators and as victims — and crime is emerging as a major political issue of the upcoming political campaign. Democrats and Republicans are arguing over who is to blame and what we should do.

"We need more and better laws," one group maintains, while the other group postures and makes pronouncements about "getting tough on criminals, more strict enforcement, and law and order." The last 25 years have been dedicated to law and order, and arrests and incarceration are higher now than they have ever been, but crime continues as a major problem.

Most people realize that lack of jobs and availability of guns are the main factors that contribute to increases in crime, but policy makers do not want to deal with those issues. Prevention is never as exciting or as demanding as cure, so the rhetoric continues.

America seems to have changed from a pragmatic, problem-solving society to an ideological culture in which untested theories take precedence over facts. In such a milieu, schools bear the brunt of much unwarranted criticism.

Not that schools are doing a perfect job. They are not. It would be wrong for teachers or administrators to use the data in this book either to justify what they are now doing or to give up with a what's-the-use attitude. Teachers and administrators must continue their search for ways to be more creative and more effective than they have been to date, and they must work harder as well as smarter than they have ever worked before.

In practical terms, schools and schooling have to change. Doing more of what is already being done is not enough. But first we have to understand the problems and the realities of young people more precisely. This book is one source of information about the problems and realities of at-risk students in schools.

Chapter 1 reviews previous reports of the Phi Delta Kappa Study of Students At Risk and illustrates the approach that was taken in the analyses reported here. Chapter 2 describes an attempt to assess risk among young people and to predict instances of further risk over a two-year period of time. Chapter 3 provides a framework for interpreting the information that was collected about young people in the 276 schools involved in this study.

The appended materials include detailed instructions that researchers used to identify schools in the 85 communities in which information was collected (appendix A), the instruments that were used to collect information about principals, teachers, and 21,706 students in the 276 schools (appendix B), the instrument used to collect follow-up information about 739 students two years later (appendix H), an experimental version of a risk scale that has been developed as a result of the analyses presented here (appendix C), and the statistical data that substantiate the conclusions and logical arguments made in both volumes 1 and 2.

Tables 10 through 43 (appendix D) summarize in tabular form the data that are displayed graphically in charts 1 through 170: how students who differed on one risk item (low grades in school, for example) compared on 33 other risk items.

Tables 44 through 53 (appendix E) depict various comparisons made of students who differed in terms of risk information collected in 1990 (non-dropouts versus dropouts, for example) on summative scales that reflect risk information that was collected in 1988.

Tables 54 through 66 (appendix F) describe the results of analyses designed to predict various types of risk (dropping out of school, for example) from data collected two years earlier.

Charts 1 through 170 (appendix G) present graphs describing the results of 1,122 comparisons of youngsters at risk on certain items with youngsters not at risk on those items. These data have been grouped according to risk items that were associated with factors identified by factor analysis.

and it is these data, especially, that serve as a basis for that portion of the title of volume 1 which states "And Schools Are Not to Blame."

Many people at the chapter level have assisted in this project; so many, in fact, that acknowledging them all would require many pages. Their contributions have been invaluable, however, and we thank them for all they did. Special thanks to the Ford Foundation and the MacArthur Foundation for enabling us to carry this project through to completion. We are especially grateful to Lowell Rose, Executive Director of Phi Delta Kappa, and the members of the Board of Directors of Phi Delta Kappa, who made the whole thing possible by providing encouragement, support, and funding. Without those things, this effort would have been nothing more than a pipe dream. Finally, special thanks to Connie McCoy, who held it all together and made it go. She was wonderfully helpful.

Jack Frymier

with

Larry Barber

Ruben Carriedo

William Denton

Bruce Gansneder

Sharon Johnson-Lewis

Neville Robertson

CHAPTER 1

INTRODUCTION

For most children, growing up is a wonderful experience and a healthy, happy time of life. But growing up is risky business for certain youngsters. Very risky. And schools are not to blame. The larger society is to blame.

The purpose of this book is to highlight problems that some students encounter in the process of growing up, and what schools are doing to help those students. As such, the book summarizes analyses of data accomplished since the descriptive data of the Phi Delta Kappa Study of Students At Risk were originally reported.¹

First, we will recount what has been accomplished thus far. The team that coordinated this project began with a general definition of what it meant for a child to be at risk. "A child is at risk," we said, "if that child is likely to fail at school or fail at life." For example, any young person who has all Fs on his or her report card is likely to fail at school. Likewise, any young person who has contemplated or attempted suicide in recent months is also very much at risk.

With that general definition in mind, the coordinating committee then posed four questions to guide the research:

1. Who is at risk?
2. What are they like?
3. What are the schools doing to help these students?
4. How effective are those efforts?

Beginning with this general frame of reference as a starting point, the coordinating committee reviewed the existing literature about risk and identified 45 factors that previous research indicated contributed to children being at risk. A protocol instrument was developed that defined each of the 45 risk factors (hereafter referred to as items) in operational terms (see appendix B). Data were collected in 1988 on more than 21,000 students in grades four, seven, and 10 by experienced professionals in 276 schools in 85 communities across the United States and Canada. All information about students was provided by teachers or counselors who knew each student best and who had immediate access to each student's records in the school.

Second, these data were subjected to descriptive analysis, correlational analysis, regression analysis, analysis of variance, factor analysis, item analysis, and comparative analysis. The results of the factor analyses, item analyses, and comparative analyses are reported in this volume.

From the factor analysis of information about students, five factors emerged: personal pain, academic failure, family tragedy, family socioeconomic situation, and family instability. Thirty-four of the original 45 risk items (11 were eliminated for logical or statistical considerations), are grouped within the five factors as follows:

- The personal pain factor included 10 items, such as student had attempted suicide, student used drugs, student had been arrested, and student had been physically or sexually abused.
- The academic failure factor included eight items, such as student had been retained in grade, student had low scores on reading achievement test, student had poor grades, and student's sense of self-esteem was low.

- The family tragedy factor included six items, such as parent lost job during the past year, parent died, sibling died, and parent was seriously ill during the past year.
- The family socioeconomic situation factor included six items, such as father was unskilled laborer or unemployed, mother had not graduated from high school, English was not the language spoken in the home, and parents' attitude toward school was negative.
- The family instability factor included four items, such as student did not live with real mother and real father, family had moved frequently during the past year, student had attended four or more schools during the past five years, and the parents had divorced during the past year.

Third, we compared students who were at risk on each of the 34 items grouped within the five factors with students who were not at risk on those items to determine the extent to which risk on one item was related to risk on the remaining items.

In each of the analyses, all of the students who were at risk on one item (had been abused, for example) were compared with all of the students who were not at risk on that same item on the 33 other risk items about which information had been collected (see appendix D).

It was hypothesized that, when compared with students who were not at risk on a particular item, more students who were at risk on that item would be at risk on the other 33 items. In other words, it was hypothesized that risk in a child's life was general (across items) rather than specific (concentrated in a few items).

For example, the first 330 comparisons (10 pain items x 33 other items) were made of students who differed on items on the personal pain factor (child had been abused, child had attempted suicide, and so forth). It was assumed that a child who experienced any or all pain factor items hurt physically; that youngster was in pain.

In all, 406 of the 21,706 students studied were reported by their teachers as having been physically or sexually abused; 21,300 had not been abused. It was assumed that those 406 students were in pain. Table 1 describes, for purposes of illustration, five of the 33 comparisons that were made between these two groups (see table 19, appendix D, for complete details).

Table 1
Comparison of children who were abused with children
who were not abused on various risk items
(Total N = 21,706)

Risk Item	N =	Abused 406 %	Not Abused 21,300 %
Father low-level job		31	17
Suspended from school		23	6
Retained in grade		32	14
Family used drugs		31	3
Parents divorced last year		23	7

As table 1 shows, almost twice as many students who had been abused had fathers who were in low-level jobs as students who had not been abused. Almost four times as many abused students had been suspended from school, more than twice as many had been retained in grade, 10 times as many lived in a family in which some family member used drugs, and three times as many came from homes in which the parents had recently divorced.

The next 264 comparisons (eight failure items x 33 other items) were made on the basis of students who differed on risk items on the academic failure factor (student had low reading scores, student had excessive absences, student failed courses last year, and so forth). It was assumed that a child who experienced any or all of the academic failure risk items had personally experienced frustration and failure in school.

By way of illustration, table 2 describes five of the 33 comparisons made between children whose achievement scores in reading were low with children whose reading scores were not low. It was assumed that children whose reading scores were low had experienced failure (see table 27, appendix D, for complete details).

Table 2

Comparison of children who had low reading scores with
children whose reading scores were not low
on various risk items
(Total N = 21,706)

Risk Item	N =	Low Reading 2,037 %	Reading Not Low 19,669 %
Failed courses		25	7
Parent alcoholic		6	3
Referred to special education		31	8
Excessive absences		14	6
Broken home		46	33

As reported in table 2, students who had low scores on standardized achievement tests in reading were more than three times as likely to have failed courses in school than students whose reading scores were not low, twice as likely to have a parent who drank excessively, almost four times as likely to have been referred to special education, twice as likely to have had excessive absences from school, and more likely not to live with their real mother and real father.

Tables 1 and 2 describe only 10 of 1,122 comparisons that have been made. The tables and charts included in this book describe all of the comparisons that have been made thus far (see appendix D and appendix G).

Two generalizations emerge from the 1,122 analyses. First, when compared to students who were not at risk on a particular item, about *twice as many students at risk on that one item were*

usually at risk on each of the other 33 items. Second, in studying the comparisons carefully it became evident that, in 97% of the 1,122 instances, differences were in the direction hypothesized (students at risk on one item were more likely to be at risk on other risk items than students who were not at risk on that item), and 88% of these comparisons differed at a level that was significant statistically (.001). The differences were dramatic and the pattern was consistent.

Children who hurt, hurt all over. Children who fail, often fail in everything they do. Risk is pervasive. If a student is at risk in one area, that student is very likely to be at risk in every other area. The question then becomes: What are teachers and others in the schools doing to help students who are at risk?

When the data about students were originally collected, the teachers who knew each student best were asked to provide information about 13 instructional procedures that might or might not have been used with each student. Two such questions follow:

Was this student placed in a class that was smaller than typical for instructional purposes?

Has the school referred this child to the psychologist or for other special services?

Information provided by teachers regarding these 13 instructional procedures was analyzed two ways: question by question, and total score. This information has been labeled *School Effort Score*. Efforts to help students who were at risk on a particular risk item were compared with the efforts to help students who were not at risk on that item. In all, 442 such comparisons were made (34 risk items x 13 effort questions). By way of illustration, table 3 describes the efforts reported by teachers for students who used drugs as compared to students who did not use drugs.

With one exception (computerized instruction), teachers regularly helped students who were at risk with these 13 instructional techniques more than they helped students who were not at risk. That generalization held true in every one of the comparisons made, with the exception noted above.

The data collected in the Phi Delta Kappa Study of Students At Risk underscores the point that teachers and others in schools are working hard — very hard — to help children who are at risk. Whether these efforts are effective is not known from these data. The fact that general concern about the problem is so widespread in America suggests that such efforts are either insufficient or ineffective or both. But the efforts are real. Anyone who wants to fault schools for not trying has not studied these data carefully.

One crucial question remains: "How effective are the programs and practices being used today to help students who are at risk?" Teachers are obviously aware — intuitively or otherwise — of who is at risk on a variety of risk items. And teachers are making concerted efforts to help at-risk students by making special instructional provisions for those students. On-site observations in a few schools were also conducted by the research team. Results of those observations are included in volume 1.

Table 3

Comparison of instructional efforts provided to children
who used drugs with those who did not use drugs

(Total N = 21,706)

Instructional Effort	N =	Used Drugs 632 %	Did Not Use Drugs 21,074 %
Placed in small class		31	16
Used computerized instruction		55	59
Referred to special education		23	12
Placed in a low group		33	18
Used individualized instruction		38	27
Provided flexible schedule		37	28
Provided a tutor		34	20
Provided extra homework		27	16
Extra parental involvement		50	37
Extra instruction in basic skills		41	27
Referred to psychologist		32	10
Special instructional materials		34	22
Provided special teachers		34	19

CHAPTER 2

ASSESSING AND PREDICTING RISK AMONG STUDENTS IN SCHOOL

Growing up is risky business. From the moment of conception to the finality of death, life involves risk. Coping with people, places, and things may lead to hope, joy, and health, or problems, pain, and premature death. Risk is an inescapable part of life. People of all ages and in all walks of life deal with risk every day.

This chapter describes one aspect of the Phi Delta Kappa Study of Students At Risk: assessing and predicting risk among students at school.

The study began with an assumption: students are at risk if they are likely to fail at school or fail at life. A student who has all Fs on his or her report card is likely to fail at school. A youngster who has contemplated or attempted suicide is likely to fail at life.

Problem

Is it possible to identify young people who are likely to fail at school or fail at life? That is, is it possible to develop a valid and reliable measure for assessing risk? And is it possible to predict, even two or three years in advance, who will drop out of school or engage in activities that are harmful to body or mind? This project was designed to address these questions.

Procedures

To answer the questions posed above, a 14-step project was initiated. First, previous studies were identified and analyzed. Second, a 45-item protocol instrument for assessing risk among students in school was developed on the basis of the published research reports. Third, Phi Delta Kappa chapters were invited to participate in the research effort, and local researchers were trained to use the protocol instrument to collect data about students in schools. Fourth, data about 21,706 students were collected in 1988 in 276 schools at three grade levels in 85 communities throughout the United States. Fifth, descriptive analyses of these data were accomplished and special problems identified. Sixth, four of the 45 items were eliminated on the basis of logical or empirical considerations. Seventh, factor analyses of the 21,706 students' responses to the remaining 41 items resulted in five factors being identified. Eighth, a study of the reliability of the 41 items on the five factors reduced the number of usable items to 34. Ninth, these 34 items were then subjected to item analysis. Tenth, the 34-item scale was modified by combining items to produce a 24-item, three-factor scale. Eleventh, follow-up data were collected in 1990 on 739 students in 10 schools identified with 1988 data as high-risk schools. Twelfth, correlation analysis was accomplished, using students for whom 1988 data and 1990 data were available. Thirteenth, 1988 mean scores of students who differed according to the 1990 data (non-dropouts vs. dropouts, for example) were compared. Fourteenth, discriminate analysis was accomplished and sub-scale risk scores (1988 data) were studied to determine if particular patterns would predict 1990 outcomes accurately. Each of these 14 steps is described in more detail below.

Step 1. Previous Research Was Analyzed

Published research about students at risk was reviewed, and 114 studies were selected for careful analysis (see appendix I). Employing an approach somewhat like that described in the *Diagnostic and Statistical Manual of Mental Disorders*,² factors that contribute to risk among youth were identified and separated into two types: those that were chronic or long-term duration (living in a home in which a parent was alcoholic, for example), and those that were short-term in nature and created stress (death of a parent). An analysis of these studies identified 45 factors (hereafter referred to as items) that were related to or seemed to contribute to risk among young people in school.

Step 2. A 45-Item Protocol Instrument Was Developed

Building directly from what previous research suggested might contribute to risk among young people in school, a 45-item protocol-type instrument was developed and field-tested in one school. The instrument was conceptualized so that teachers or others in a school who knew students well and who had access to a student's records, could provide detailed information about a student without the student having to be involved and without the student's name being divulged (see appendix B).

Step 3. People Were Invited to Participate and Were Trained

In 1988, Phi Delta Kappa included 140,000 members who belonged to 640 local chapters. Each of the chapters was invited to submit a proposal to participate in the "Phi Delta Kappa Study of Students At Risk." Two hundred forty chapters submitted proposals, which were evaluated by a review committee, and 100 chapters were selected for inclusion in the project. Representatives from those 100 chapters participated in a three-day training session in Kansas City, Missouri, in October 1988. A major emphasis during the training session was on selecting schools that would be representative of the area served by the chapter, and on following precise procedures in collecting data about students (see appendix A and appendix B).

Step 4. Data Were Collected About 21,706 Students

In the fall of 1988, information about students in grades four, seven, and 10 was collected by teachers and others who knew each student best and who had access to each student's records in the school, using the 45-item protocol instrument described above. The students attended 276 schools in 85 communities throughout the United States. All of the students studied were typical in the sense that they were not enrolled in special schools (vocational or alternative schools, for example) nor assigned to special groups (special education or Chapter I classrooms). All information was recorded by professionals on optical-scan answer blanks.

Step 5. Descriptive Analysis of Results

Information about the 21,706 students was analyzed first using descriptive statistics. Frequencies, means, distributions, missing cases, and the like were determined for each item according to grade level, gender, and racial or ethnic background.

Step 6: Four Items Were Dropped:

Following the descriptive analysis of data, four items were dropped from the scale. One of the items, I.Q. scores, was dropped because many schools had no information about that item, and other items were dropped because it seemed inappropriate to include them as risk items, even though previous research suggested a relationship between what the items measured (position in family, size of family) and risk status. Finally, a cut-off point was defined for each item on the scale:

students whose scores fell on one side of the cut-off point were assumed to be at risk, and those whose scores fell on the other side of the cut-off point were assumed not to be at risk.

Step 7. Factor Analyses Were Accomplished

Using the information about students that was provided by teachers who knew each student best, the 41 items were subjected to various factor analyses. In all, more than 65 analyses were done, and the loadings of each item on the different factors were studied carefully in search of a best solution. It was finally decided that a five-factor, principal components analysis using oblique rotation produced the best solution.

Step 8. Reliability of Items on Factors Determined

Using the alpha procedure, the extent to which each item on a factor contributed to the factor was determined, and items in which reliability was low were dropped from the scale. Seven items were eliminated, leaving 34 items on the five-factor scale. Some items were retained on the basis of content validity (attempted suicide, for example), even though they were not "good" items in the statistical sense (probably because the frequency of incidence was low).

Step 9. Item Analysis

After it had been determined that each of the 34 items contributed to one of the five factors in statistically significant ways, it was decided to see if students who differed on any one item also differed on the other items on the scale. Students who differed on an item were separated into two groups (those who had attempted suicide, and those who had not attempted suicide, for example), then the responses of students in those two groups were compared on each of the other items on the scale using the chi square statistic. This procedure produced 1,122 analyses (students were separated on one item and compared on the other 33 items, and there were 34 sets of such comparisons, so $33 \times 34 = 1,122$ comparisons).

Step 10. Items Were Combined to Shorten the Scale

Following the chi square analyses described above, the scale was shortened again by combining comparable items to produce a 24-item scale. A careful study of the 34 items suggested that several items tapped the same aspect of a child's life. For example, one item asked whether the child's parents had divorced during the previous year, and another item asked about who the child lived with — real parents, real mother and step father, and so forth). The first item had been included originally as a short-term stress item, whereas the second item had been included as a long-term chronic item, as described in step two above. The items obviously correlated with one another, so in the final 24-item scale, one item was developed from the two items which included an or — "Does the student not live with his or her real mother and real father, or did the parents get a divorce during the past year?" It was assumed that the new item would tap the same risk condition, but not provide duplicating information about that risk condition in any given student's risk scale score (see appendix C).

As a final step, the five factors were reduced to three by combining three related factors (family instability, family tragedy, and family socioeconomic situation) into one factor. This meant that there was now a three-factor, 24-item risk scale, and it was possible to generate scaled scores for each of the three factors by summing the number of items which indicated risk for a particular student. (Note: These were not factor scores, as that term is usually used, but the total number of items on each factor for which the information about a student indicated risk. For example,

if there were 10 items on a factor, and information about a student indicated that the student was beyond the cut-off point on three of those 10 items, the student's score on that factor would be 3.)

Following this process, four scaled scores were computed for each of the 21,706 students about whom information had been collected in the fall of 1988 — HOME 88 (10 items), PAIN 88 (eight items), FAIL 88 (six items), and TOTAL 88 scores.

The HOME 88 scaled scores included information about each student's home situation — father's and mother's level of education, father's and mother's level of employment, who the student lived with, whether or not English was the language spoken most frequently in the home, alcoholism in the home, parents' health status, and the parents' attitude toward education, for example.

The PAIN 88 scaled scores included information about such things as a student's use of drugs, attempted suicide, arrest, use of alcohol, or involvement in a pregnancy.

The FAIL 88 scaled scores included information about such things as failed courses, low Reading test scores, excessive absences, or retention in grade.

The TOTAL 88 scaled scores were summations of the other three: HOME 88, PAIN 88, and FAIL 88 scores.

Step 11. Collected Additional Data on Some Students

During November and December 1990, 10 schools that had been identified as high risk schools (Each school had a large number of students who were at risk, according to the 45-item risk scale used in 1988.) provided follow-up information regarding students about whom information had been collected in October 1988 (see appendix H).

The information collected in 1990 included 30 questions such as "Did this student drop out of school?" or "Did this student transfer to another school?" as well as questions about drug use, pregnancy, child abuse, grades in school, suspension, attendance, courses failed, and reading test scores. No questions were asked about the student's home situation. Students were identified to the research team only by a student ID number. Reasonably complete sets of data were collected about 739 students at three grade levels: sixth, ninth, and 12th (unless a student had been retained in grade, in which case the data were obtained from that grade level).

Information from these 30 questions was grouped into four categories or sub-scales: PAIN 90, FAIL 90, TOTAL 90, plus demographic items. Item scores and sub-scale scores were computed for each of the 739 students about whom follow-up information was collected in late fall 1990.

PAIN 90 items were those that included information about such things as a student's use of drugs, sale of drugs, physical or sexual abuse, use of alcohol, involvement in a pregnancy, attempted suicide, or serious illness or accident.

FAIL 90 items were those that included information about such things as a student's suspension from school, reading test scores below the 20th percentile, student had failed two or more courses in school, had 20 or more absences from school in the past year, or had been retained in grade.

TOTAL 90 scores were summations of PAIN 90 and FAIL 90 scores. It was assumed that these scores were valid criterion measures against which to predict from the 1988 sub-scale or total risk scale scores.

Step 12. Relationships Between 1988 and 1990 Data

To see if there was a relationship between information collected about students in 1988 and 1990, correlation coefficients were computed between each of the sub-scale scores and total scores, as described in steps 10 and 11 above. Each of these correlational analyses was accomplished by grade level and for the total sample. The hope was that correlation coefficients would differ signifi-

cantly from zero, indicating that there was a relationship between the scores, thus it might be possible to predict risk status two years in advance with the risk scale being developed.

Step 13. Compared 1990 Groups on 1988 Scale Scores

Using follow-up information about the 739 students that was collected in 1990 as a basis for differentiating students according to risk (for example, student had dropped out of school by 1990 vs. student had not dropped out of school by 1990), comparisons of the 1988 mean sub-scale scores of the two groups were made by use of the *t* statistic. This constituted a backward look at 1988 information by comparing groups known to be different on various risk items in 1990.

Step 14. Predicting 1990 Status from 1988 Scores

In this analysis, information collected about students in 1988 (HOME 88, FAIL 88, PAIN 88, and TOTAL 88) was grouped into a series of different patterns to predict risk status among students known to be different in 1990. Discriminate analysis was accomplished first, and then the cross tabulation procedure and chi square statistic were employed. Because the process was complex, it is described in detail below.

Each of the sub-scales referred to above was a score determined on the basis of information collected by teachers in 1988 regarding the degree to which a student was experiencing some kind of risk in 1988. Scores ranged from a low of 0 to a theoretical high of 6 on FAIL 88, for example, so a given student's score might be 1 or 3 or whatever.

The same logic applied to the other sub-scales. Using the information collected about a particular student in 1988, a student's score on each of the sub-scales might look like this:

	HOME 88	3
	FAIL 88	1
	PAIN 88	0
resulting in	TOTAL 88	4

Such a set of scores would indicate that, for this particular student, information provided by that student's teacher in 1988 indicated that the student was at risk (beyond the cut-off point) on three items in the HOME 88 sub-scale, on one item on the FAIL 88 sub-scale, on zero items on the PAIN 88 sub-scale, resulting in a TOTAL 88 score of 4.

In the analyses being described here, discriminate analysis was accomplished first, then more than 80 patterns of sub-scale scores from 1988 were tested individually in an effort to determine precise cut-off points in the various 1988 sub-scale scores to predict actual risk status in 1990. The following examples illustrate the point. Two of the patterns tested looked like this:

HOME 88 >2 and FAIL 88 >1 and PAIN 88 >1 (example 1)

HOME 88 >1 or FAIL 88 >2 and PAIN 88 >0 (example 2)

In example 1, students who had a HOME 88 sub-scale score of 3 or higher *and* a FAIL 88 sub-scale score of 2 or higher *and* a PAIN 88 sub-scale score of 2 or higher were placed in one group, and students whose scores did not meet the above criteria for inclusion were placed in another group.

In example 2, students who had a HOME 88 sub-scale score of 2 or higher *or* a FAIL 88 sub-scale score of 3 or higher *and* a PAIN 88 sub-scale score of 1 or higher were placed in one group, and students whose scores did not meet these criteria for inclusion were placed in another group.

These separations, of course, were always based on 1988 information. It was hypothesized that a student whose 1988 scores put that person in the first group would be more likely to be at risk in 1990 than a student whose 1988 scores placed that person in the second group.

Following that, these two groups were compared on various criterion measures, using information collected in 1990 as criteria to be predicted against (dropped out of school, low grades in school, failed courses, low reading scores, retained in grade, used drugs, arrested, had been abused), by accomplishing a cross-tabulation analysis and computing the chi square statistic. Such a process always produced a 2 x 2 matrix with the following kinds of cross-tabulation information:

Students in this cell were not at risk and were predicted not to be at risk.	Students in this cell were at risk but were predicted not to be at risk.
Students in this cell were not at risk but were predicted to be at risk.	Students in this cell were at risk and were predicted to be at risk.

Figure 1. Rationale for Predicting Risk

If a particular pattern of 1988 scores was effective for predicting actual 1990 risk status, there would be a large number of cases in the upper left-hand cell (students in this cell were not at risk and were predicted not to be at risk) and a large number of cases in the lower right-hand cell (students in this cell were at risk and were predicted to be at risk), with proportionally fewer students in the other two cells. Further, the chi square statistic would be large.

In the next section, the results that all of these procedures produced are described, step by step.

Results

Results Step 1. Analysis of Previous Research

As outlined in Procedures, Step 1 above, 114 research studies were analyzed, and 45 factors were identified that contributed to risk among young people. During the analysis, a 114 x 45 matrix was developed. Each study was listed down the side and each factor was listed across the top, with notes in each cell indicating if the study indicated that that factor contributed to risk. The studies are all listed in the bibliography (see appendix I).

Results Step 2. A 45-Item Instrument Was Developed

From the analysis of previously published research reports, a list of factors or things that related to various types of risk were identified, and each one was defined in operational terms.

For example, the published research indicated that family situation was related to risk status. Accordingly, the following code was developed as an assessment item to collect information about a student's family situation to relate family situation to risk:

Real mother, real father	= 1
Real mother, stepfather	= 2
Stepmother, real father	= 3
Real mother only	= 4
Real father only	= 5
Extended family	= 6
Foster parents	= 7
Institution	= 8

Figure 2. Family Grouping Codes

The phrasing of the item was designed to provide a reasonable array of descriptions of home situations and family groupings. The intention was to frame the question in a way that would elicit accurate information without evoking personal bias or distorting professional judgment. Each of the 45 items was developed this way. The wording of each item was reviewed by several people, then the total instrument was used in a trial run to collect data in one school by some one other than the people who had participated in development of the items. Following the trial run, several items were rewritten.

The final instrument, "Job 8: Collecting Information About Students," was used by trained data collectors (see appendix B).

Results Step 3. Chapters Were Selected and People Were Trained

Each of 640 chapters in Phi Delta Kappa was invited to submit a proposal to participate in the Study of Students At Risk. Chapters had 10 weeks to respond, and 240 chapters submitted proposals. Each proposal was evaluated by an independent committee of Kappans according to criteria specified in the letter of invitation. Following that review, 100 chapters were selected to participate in the study.

A detailed training manual (140 pages) was prepared and mailed to participants in early September 1988. The manual described 13 jobs to be done by each chapter that participated in the project. The local research directors (one from each of the 100 chapters) assembled in Kansas City, Missouri, during the first week of October 1988 for three days of intensive training. An evaluation of the training sessions by participants indicated that the training was effective.³

Results Step 4. Data Were Collected About Students

Between October 15 and December 15, 1988, information about students was collected by teachers or counselors who knew each student well and who had access to a student's records in 276 schools around the United States. Information was recorded on optical scan forms. Those forms were shipped to Phi Delta Kappa headquarters by January 1989. All forms were scanned and the resulting data recorded on magnetic tape. Computer tapes were reviewed for errors to assure the integrity of data.

Results Step 5. Descriptive Analysis of Results

Data about students were aggregated, then analyzed — by location, school, grade level, sex, racial or ethnic background — using descriptive statistics: frequencies, means, standard deviations, modes, and medians. The percentage of students in each general category is reported in the pages that follow.

item no. from Instructions for Recording Information About Students (p. 71)	Ethnic group	
	White	70%
	Black	16%
	Hispanic	7%
	Native American	2%
	Asian	3%
	Unknown	2%
	Sex	
	Male	51%
	Female	49%
	Grade or education	
	Fourth grade	5,997
	Seventh grade	7,621
	10th grade	7,341
	Others	747
1.	Father's occupation	
	Professional	15%
	Manager, technician	15%
	Skilled laborer	27%
	Unskilled laborer	13%
	Unemployed	5%
	Unknown	25%
2.	Father's level of education	
	Did not graduate from high school	8%
	Graduated from high school only	20%
	Finished 1-3 years post-secondary	8%
	Graduated from college	10%
	Did post-graduate work	5%
	Unknown	50%
3.	Mother's occupation	
	Professional	11%
	Manager, technician	9%
	Skilled laborer	18%
	Unskilled laborer	14%
	Housewife	24%
	Unemployed	5%
	Unknown	19%
4.	Mother's level of education	
	Did not graduate from high school	8%
	Graduated from high school only	24%
	Finished 1-3 years post-secondary	10%
	Graduated from college	9%
	Did post-graduate work	4%
	Unknown	45%

5.	Number of siblings	
	None	10%
	One	29%
	Two	23%
	Three	12%
	Four	11%
	Unknown	15%
6.	Position in family	
	Only child	12%
	Eldest	26%
	Middle	18%
	Youngest	26%
	Unknown	18%
7.	Sibling who dropped out of school	
	None	64%
	One	3%
	Two or more	1%
	Unknown	32%
8.	Family grouping	
	Real mother, real father	55%
	Real mother, stepfather	10%
	Stepmother, real father	2%
	Real mother only	16%
	Real father only	2%
	Extended family	3%
	Foster home or institution	1%
	Unknown	10%
9.	Language used most in the home	
	English	91%
	Spanish	3%
	Asian	1%
	Unknown	5%
10.	Estimate of parents' attitude toward education	
	Very negative	1%
	Negative	4%
	So-so/in between	18%
	Positive	32%
	Very positive	25%
	Unknown	20%

11. Area or community in which the student resides

Rural	18%
Small town	20%
Small city	27%
Suburban	15%
Metro urban	10%
Inner city urban	8%
Unknown	2%

12. Number of schools attended by the student during the past five years (including this year)

One	28%
Two	36%
Three	22%
Four	6%
Five or more	3%
Unknown	6%

13. Student's scores on norm-referenced standardized achievement tests in reading

Below 20th percentile	9%
Between 21st and 40th percentile	16%
Between 41st and 60th percentile	22%
Between 61st and 80th percentile	20%
Over 80th percentile	19%
Unknown	14%

14. Student's score on norm-referenced intelligence or aptitude test

Below 80	3%
81 to 90	7%
91 to 110	22%
111 to 120	11%
Above 120	7%
Unknown	52%

15. Number of courses failed last school year (1987-88)

None	76%
One	7%
Two	4%
Three	2%
Four	3%
Unknown	8%

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|-----|--|-----|
| 16. | Age relative to other students in same grade level | |
| | Two years younger than others | 1% |
| | One year younger than others | 3% |
| | Same age as others | 75% |
| | One year older than others | 14% |
| | Two years older than others | 3% |
| 17. | Number of times this student has been retained in grade (held back) | |
| | Never | 78% |
| | One | 12% |
| | Two | 2% |
| | Unknown | 8% |
| 18. | Number of days student was absent during the 1987-88 school year | |
| | 10 or less | 66% |
| | 11 to 20 | 15% |
| | 21 to 30 | 4% |
| | 31 or more | 3% |
| | Unknown | 12% |
| 19. | Number of times student was suspended during 1987-88 school year (in-school or out-of-school suspension) | |
| | None | 80% |
| | One or more | 6% |
| | Unknown | 14% |
| 20. | Number of times student was expelled during 1987-88 school year. | |
| | None | 87% |
| | One | 0% |
| | Two | 0% |
| | Unknown | 13% |
| 21. | Number of extracurricular activities (school sponsored) in which student currently participates | |
| | None | 42% |
| | One | 21% |
| | Two | 9% |
| | Three | 4% |
| | Four or more | 3% |
| | Unknown | 21% |
| 22. | Teacher's estimate of the student's sense of self-esteem | |
| | Very negative | 3% |
| | Negative | 10% |
| | So-so/in between | 28% |
| | Positive | 32% |
| | Very positive | 12% |
| | Unknown | 17% |

23.	Average grades student received last year	
	F	3%
	D	10%
	C	30%
	B	34%
	A	16%
	Unknown	7%
24.	Has the student been diagnosed as being in a special education category?	
	No	83%
	Learning disabled	6%
	Other	4%
	Unknown	7%
25.	Has the student changed his or her place of residence during the past year?	
	No	74%
	Yes	16%
	Unknown	10%
26.	Has the student changed the school that he or she attends during the past year?	
	No	72%
	Yes	23%
	Unknown	5%
27.	Have either of the student's parents had a major change in health status during the past year?	
	No	61%
	Yes	4%
	Unknown	35%
28.	Has the student had either a father or mother die during the past year?	
	No	72%
	Yes	1%
	Unknown	27%
29.	Did a parent attempt suicide during the past year?	
	No	61%
	Yes	1%
	Unknown	38%
30.	Did a parent lose his or her job during the past year?	
	No	59%
	Yes	4%
	Unknown	37%

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|-----|---|-----|
| 31. | Did the student's parents go through a divorce or separation during the past year? | |
| | No | 65% |
| | Yes | 7% |
| | Unknown | 28% |
| 32. | Did the student have a close friend who died during the past year? | |
| | No | 60% |
| | Yes | 5% |
| | Unknown | 35% |
| 33. | Did the student experience a serious illness or accident during the past year? | |
| | No | 68% |
| | Yes | 3% |
| | Unknown | 29% |
| 34. | Did a brother or sister die during the past year? | |
| | No | 71% |
| | Yes | 1% |
| | Unknown | 28% |
| 35. | Was the student dropped from an athletic team during the past year? | |
| | No | 71% |
| | Yes | 1% |
| | Unknown | 28% |
| 36. | Did the student attempt suicide during the past year? | |
| | No | 70% |
| | Yes | 1% |
| | Unknown | 29% |
| 37. | Did a pregnancy occur during the past year? | |
| | No | 77% |
| | Yes | 1% |
| | Unknown | 22% |
| 38. | Is there evidence that the student has been using drugs or engaged in substance abuse of any kind during the past year? | |
| | No | 74% |
| | Yes | 3% |
| | Unknown | 23% |

- | | | |
|-----|---|-----|
| 39. | Is there evidence that the student has been selling or pushing drugs of any kind during the past year? | |
| | No | 76% |
| | Yes | 1% |
| | Unknown | 23% |
| 40. | Is there evidence that anybody in the family has been using drugs or engaged in substance abuse of any kind during the past year? | |
| | No | 65% |
| | Yes | 3% |
| | Unknown | 32% |
| 41. | Is there evidence that the student has been drinking alcohol during the past year? | |
| | No | 72% |
| | Yes | 5% |
| | Unknown | 23% |
| 42. | Is there evidence that either parent drank excessively or was an alcoholic during the past year? | |
| | No | 63% |
| | Yes | 4% |
| | Unknown | 33% |
| 43. | Is there evidence that the student was arrested for driving while intoxicated during the past year? | |
| | No | 76% |
| | Yes | 1% |
| | Unknown | 24% |
| 44. | Is there evidence that the student was arrested or convicted for any illegal activity during the past year? | |
| | No | 76% |
| | Yes | 1% |
| | Unknown | 23% |
| 45. | Is there evidence that the student was abused, sexually or physically, during the past year? | |
| | No | 72% |
| | Yes | 2% |
| | Unknown | 26% |

[Note: The school effort items (nos. 46-58) are reported in chapter 5, volume 1.]

Results Step 6. Four Items Were Eliminated

Following a careful study of the descriptive information described above, four items were dropped — number of siblings, position in the family, intelligence test score, and number of times a student was expelled. The first two items were deemed inappropriate and information on the other two items was missing to a degree that it was decided they should be excluded. (Note: what should have been apparent earlier became obvious from the data — there was no information about students who had been expelled, because students who were expelled were not in school.)

Results Step 7. Factor Analyses Were Accomplished

In order to identify items that accounted for the total variance most effectively, factor analysis was accomplished several times — by grade level, total sample, principal components analysis, principal axis analysis, orthogonal rotation, oblique rotation, and for various numbers of factors. The purpose was to identify factors that accounted for variance in the most parsimonious manner.

It was finally concluded that a five-factor solution that employed principal components analysis and oblique rotation produced the optimal solution. The intercorrelation matrix produced correlation coefficients among the factors that were all below .20, providing additional support for the independence of the five factors. Following computation of alpha as an index of item reliability (see step 8 below), 34 items organized around five factors were retained in the scale.

The five factors were labeled as follows: personal pain, academic failure, family tragedy, family instability, and family socioeconomic situation.

The personal pain factor included the following items:

- Suspended from school
- Attempted suicide
- Involved in pregnancy
- Student sold drugs
- Student used drugs
- Family used drugs
- Student used alcohol
- Parent alcoholic
- Student arrested
- Student abused

The academic failure factor included the following items:

- Low grades in school
- Failed courses
- Overage in grade
- Retained in grade
- Excessive absences
- Low self-esteem
- Referred special education
- Low reading scores

The family tragedy factor included the following items:

- Parent was seriously ill during previous year
- Parent died during previous year

- Parent lost job
- Friend died
- Student was seriously ill or in accident last year
- Sibling died

The family instability factor included the following items:

- Broken home
- Moved frequently
- Changed schools frequently
- Parents divorced last year

The family socioeconomic factor included the following items:

- Father low-level job
- Father not high school graduate
- Mother low-level job
- Mother not high school graduate
- Parents' attitude negative
- Language not English

A study of the five factors suggested that three were beyond the influence of the school: family tragedy, family instability, and family socioeconomic situation. Two of the factors were within the purview of the school: academic failure was directly related to school activity, and personal pain could be considered school-related in the sense that students come to school, thus the school might deal with the problems through special services such as instruction, counseling, referral, or other approaches.

Results Step 8. Determining Reliability of Items

Alpha level (a measure of internal consistency) was determined for each of the five factors.

An attempt was made to maximize alpha levels by discarding items that possessed relatively low level of communality within a given factor. However, certain items were retained because they were logically related to risk status and too important to dismiss, (family member used drugs, for example), even if alpha levels were low.

The alpha levels for each of the five factors were .68 (personal pain), .69 (academic failure), .53 (family socioeconomic situation), .52 (family instability), and .40 (family tragedy). One might argue that the alpha level for family tragedy was too low to retain, but the content of the items in family tragedy could not be ignored: parent loss of job, parental alcoholism, and death of a parent were examples that underscored the nature of risk for a youngster who had to go home to such a reality every day.

Results Step 9. Item Analyses Were Accomplished

Once the 45-item scale had been reduced to 34 items organized around five factors, it was decided to compare students known to differ on one item on all of the other items in the scale. That is, students who differed on an item were separated into two groups (those who were at risk on the item and those who were not at risk on the item), then the groups known to be different on that item were compared on the other 33 items in the scale by use of the chi square statistic. That procedure produced 1,122 analyses — students were separated on one item and compared on the other 33 items, and there were 34 sets of such comparisons, so $33 \times 34 = 1,122$ comparisons.

Appendix D includes 34 tables that describe the comparisons reported here. The numbers are large, and large numbers produce higher chi square values than small numbers, thus most of the comparisons differed at a level that was significant statistically.

The information described in the 34 tables of appendix D is important; it documents the major finding of this study: children who fail at school are more likely to fail at life, and children who fail at life are more likely to fail at school. Given the source of risk, as reflected in the content of the 34 items, most risks that confront a child come from outside the school.

Results Step 10. The Scale Was Shortened to 24 Items

Following the item analyses described above, the various items of the scale were scrutinized with the intention of shortening the scale to a manageable length. Several items were related, and other items asked for information about the same thing in different ways. For example, father's level of education and mother's level of education were related; a child who had been retained in grade was also overage in grade.

Following this scrutiny, 14 items were retained intact, but 20 items were collapsed into 10 by combining two related items into one. One such revised item follows:

Has the student changed his or her place of residence during the past year, or did the student change the school that he or she attended during the past year?

What was aimed at in this new item was information about family instability: if a child changed his or her place of residence, the youngster would have been likely to change the school that he or she attended, thus it was assumed that one item would do the work of two.

This procedure resulted in a 24-item scale (see appendix C). This new scale retained the same content as the previous scale, but was now cast in a slightly different format. All items were Yes or No questions, and the 24 items were organized around three sub-scales: HOME 88 (10 items), PAIN 88 (8 items), and FAIL 88 (6 items). The 16 items on three factors related to the family were combined into one 10-item HOME 88 sub-scale, even though the separate factors were independent in the factor analysis. Figure 3 depicts the 24 items in a template format.

There are several inferences one might make from a study of the descriptive data collected about students in 1988. First, according to information provided by teachers, 22% of the 21,706 students had no risk of any kind while 78% had some evidence of risk.

Second, 86% of the students experienced no incidence of personal pain risk (use of drugs, involvement in a pregnancy, attempts at suicide, child abuse), although 14% experienced one or more instances of such PAIN 88 risk.

Third, almost 60% of the students experienced no risk in the area of academic failure (low grades, poor reading test scores, retention in grade, negative sense of self-esteem), although 40% did experience such FAIL 88 risk.

Fourth, 32% of the students had experienced no home risk (parents had divorced, English was not the language spoken in the home, parents had a negative attitude toward education), but 68% had experienced such HOME 88 risk.

Using the revised 24-item scale as a general index of risk, 25% of the 21,706 students were at risk on three or more of the 24 items, 10% were at risk on five or more items, and 1% were at risk on 10 or more items.

Blacks were more at risk than whites, Hispanics were more at risk than Asians, boys were more at risk than girls, and older students were more at risk than younger students.

Items associated with:

family factors	personal pain factor	academic failure factor
Mother or father unskilled laborer or unemployed	Student attempted suicide during the past year	Student's scores on reading tests below 20th percentile
Mother or father did not graduate from high school	Student involved in a pregnancy during past year	Student failed courses or had grades of D or lower last year
Student does not live with real mother and real father, or parents got divorced	Evidence that the student has been using drugs or selling drugs during past year	Student has been retained in grade or is overage in grade
English not the language spoken in the home	Evidence that the student has been drinking alcohol during past year	Student missed more than 20 days of school last year
Student changed residence or changed schools last year	Evidence student was arrested or convicted of illegal activity	Student has a negative sense of self-esteem
Parent had major change of health status or died last year	Student was suspended from school during past year	Student was diagnosed as eligible for special education
Parent lost his or her job last year	Evidence student was physically or sexually abused	
Brother, sister, or close friend died last year	Others in family use drugs or drink alcohol excessively	
Student had serious illness or accident last year		
Parent's attitude toward education is basically negative		

Figure 3. Risk Template

The template describes the *substance* of the 24 items in terms of the factors inherent in the risk scale (see appendix C). The 10 items associated with the three family factors are listed in the left hand column, the 8 items associated with the personal pain factor are listed in the center column, and the 6 items of the academic failure factor are listed in the right hand column.

The exact wording of each item is not stipulated on the template (see the risk scale for that wording), but using the template it is possible to see all items at a glance and to get a general picture of what may apply to a particular child.

There are no norms for the risk scale, but the data in the present study suggest that a typical youngster might have one instance of risk in the family column, none in the pain column, and perhaps one in the academic failure column. Using that kind of information as a base suggests that if a youngster had even one instance of risk evidenced on the personal pain factor, that child should be considered as seriously at risk. Or, if a youngster evidenced two or more instances of risk on the family factors or one or more instances of risk on the academic failure factor, that child should be considered as seriously at risk.

Over time, these items can be refined further and norms developed. For the time being, the template should prove useful as an instrument to help teachers and others develop a sensitivity to the kinds of problems that students bring to school.

Table 4 describes the mean scores for each of the three sub-scales for the 21,706 students for whom teachers provided information in the fall of 1988, by grade level and for the total sample. Scores were produced by computer manipulation of the 24 items as redefined in step 11; questions were not posed in 1988 in the form depicted in appendix C. Even so, the scores reported in table 4 provide a sense of the degree of risk that was reported in 1988.

Table 4
Mean scores of students at various grade levels
on three risk sub-scales (1988)

Group	N	HOME 88	PAIN 88	FAIL 88
Fourth-Graders	5,997	1.31	.10	.65
Seventh-Graders	7,621	1.36	.16	.70
Tenth-Graders	7,341	1.31	.43	.87
Total Sample	21,706	1.31	.24	.74

As said above, the mean scores in table 4 were produced by calculations that included programming the computer to combine items with content comparable to the items included in the form in appendix C, but that form was not actually used to collect the data. The mean scores depicted here are useful in providing some sense of the extent of risk that might be reflected if the instrument were used on a fairly broad scale, but it must be kept in mind that the instrument in appendix C was not used as a data collection device to produce the above numbers. These scores must be viewed with caution. They are presented here for illustration purposes only.

The 24-item scale in appendix C is an experimental tool. It has not been used to collect data in its present form, although the content of the items has been substantiated in this study as useful content for assessing risk among students in school. What is suggested now is that others use the instrument experimentally: test its usefulness, examine its reliability, and verify its validity as a predictive device in identifying risk among young people.

Results Step 11. Collected Follow-Up Data on Students

Following the tabulation of risk scores of students in the 276 schools and using the 41-item scale described in step 6 above, schools were divided into two groups: high risk schools and low risk schools. Schools were listed in rank order, according to each school's aggregated mean score for all of the students studied on the 41-item risk scale described earlier. Schools above the mid-point were referred to as high-risk schools; they had a high number of students who had been identified as being at risk on the scale as it was first employed. Schools below the mid-point were referred to as low-risk schools. Separate listings were made of schools according to grade level: elementary school, middle school, and senior high school level.

Thirty schools were identified as very high risk schools and invited to participate in a follow-up study of the same students studied two years earlier. Participants who had collected data about students in 1988 were asked to approach the schools again and see whether it would be possible

to get additional information about the same students studied in 1988. Ten schools were able to identify students by student ID number and provide follow-up information. In all, information about 739 students who had been studied in 1988 was collected in 1990 in the same way the original data had been collected — it was provided by a teacher or counselor who knew the student well and who had access to a student's records in the school.

In addition to questions about birth date, sex, and racial or ethnic background, information was collected about 18 areas that were comparable to the PAIN 88 and FAIL 88 questions that had been asked two years before: use of drugs, involvement in a pregnancy, attempted suicide, failed courses, excessive absences, and low reading test scores. If a student had dropped out of school, that information was also noted. The 1990 information was grouped into two sub-scales (PAIN 90 and FAIL 90) that corresponded roughly to two of the three sub-scales generated by the 1988 data: PAIN 88 and FAIL 88.

Table 5 presents the mean sub-scale scores, by grade level, for the 739 students about whom follow-up information was collected in 1990. These scores suggest that risk among young people increases with age — older students have higher mean risk scores than younger students — although no tests of the statistical significance of such differences were accomplished.

Table 5

Mean scores for 739 students studied two years
after risk data were originally collected

Group	N	PAIN 90	FAIL 90
Sixth-Graders	257	.16	.56
Ninth-Graders	238	.23	.71
12th-Graders	239	.32	1.06
Total Sample	739	.23	.76

Results Step 12. Correlational Analysis

As one test of the relationship between 1988 and 1990 information, product moment correlation coefficients were computed between PAIN 88, FAIL 88, TOTAL 88 scores and PAIN 90, FAIL 90, and TOTAL 90 scores. It was assumed that to predict risk status over time, information about risk collected in 1988 would correlate positively with information about risk collected in 1990. Tables 6 through 9 present the results of this correlational analysis between 1988 risk scores and various 1990 risk scores.

As shown in tables 6 through 9, the product moment correlation coefficients differed from zero in many instances. Such correlation coefficients suggest that it may be possible to predict risk status over a two-year period. In the next section, students who differed in 1990 were compared on their risk scores in 1988.

Table 6

The relationship between students' PAIN 88 risk scores
and their 1990 risk scores

Group	PAIN 90	FAIL 90	TOTAL 90	N
Elementary	.15	.09	.12	257
Middle Level	.32**	.06	.19**	238
Senior High	.19**	.20**	.23**	239
Total	.23**	.16**	.21**	739

**Significant beyond .001 level

Table 7

The relationship between students' FAIL 88 risk scores
and their 1990 risk scores

Group	PAIN 90	FAIL 90	TOTAL 90	N
Elementary	.22**	.41**	.39**	257
Middle Level	.35**	.35**	.41**	238
Senior High	.30**	.47**	.47**	239
Total	.30**	.42**	.43**	739

**Significant beyond .001 level

Table 8

The relationship between students' HOME 88 risk scores
and their 1990 risk scores

Group	PAIN 90	FAIL 90	TOTAL 90	N
Elementary	.14	.26**	.25**	257
Middle Level	.10	.09	.11	238
Senior High	.13	.21**	.21**	239
Total	.12**	.19**	.19**	739

**Significant beyond .001 level

Table 9

The relationship between students' TOTAL 88 risk scores
and their 1990 risk scores

Group	PAIN 90	FAIL 90	TOTAL 90	N
Elementary	.22**	.37**	.36**	257
Middle Level	.35**	.27**	.35**	238
Senior High	.27**	.39**	.41**	239
Total	.28**	.36**	.38**	739

**Significant beyond .001 level

Results Step 13. Comparison of Mean Scores

In this section, students who differed on various risk items in 1990 were compared on their 1988 risk scores. The assumption here was if students were known to differ in 1990 on a particular risk item (some students were at risk, others were not at risk, for example), then it should be both interesting and helpful to know whether those students differed in 1988 when data were originally collected. This backward look at students was intended to shed more light on the problems associated with prediction.

In table 44 (see appendix E), 37 students who had dropped out between 1988 and 1990 were compared with students who had not dropped out on four risk scores collected in 1988: HOME 88, FAIL 88, PAIN 88, and TOTAL 88.

Of the 739 students who were followed-up in 1990, 239 had been in the 10th grade when data were originally collected in 1988. The 37 dropouts cited in table 44 came primarily from that 1988 group of 10th-graders, most of whom were enrolled in the 12th grade in 1990. Since the students who had been fourth-graders or seventh-graders in 1988 were still enrolled in school (they were too young to drop out), the 37 dropouts represented approximately 15% of the 239 students who were old enough to drop out. By subtraction, this suggests that the graduation rate for that group of students was approximately 85%, a reasonable figure, given other data currently available.

Tables 44 through 53 (see appendix E) present 40 comparisons of 1988 risk scores of groups known to differ in 1990. Most of these differences were significant statistically, providing further support for the idea that predicting risk status over time might be a possibility.

Results Step 14. Predicting Risk

As described in the procedures section earlier, more than 80 cross tabulation analyses were accomplished in an effort to predict incidents of risk among students in 1990 with 1988 information. After studying the correlational analyses described in step 12, it became evident that there were many statistical relationships (as reflected in the number of correlation coefficients that differed significantly from zero) between 1988 and 1990 data. Likewise, the comparison of 1988 mean scores between students who were at risk in 1990 and those who were not at risk in 1990 suggested that prediction might be possible. Reviewing these statistics carefully suggested that there probably was not one pattern of scores that would accurately predict different types of risk, so the search for specific predictive patterns began.

Given the fact that there were four sets of 1988 scores for each student (PAIN 88, FAIL 88, HOME 88, and TOTAL 88), and given the fact that different types and degrees of risk had been ascribed to each student for whom data were collected in 1990, it seemed reasonable to presume that what would predict a student dropping out of school, for example, might differ considerably from what would predict drug use, arrest, abuse, retention in grade, failing grades in school, or low reading test scores.

Using the cross tabulation procedure, as described in procedures, step 14, one pattern of 1988 sub-scale scores after another was subjected to statistical analysis in search of effective predictors. With three sub-scale scores involved, each with a range from 0 to 6 or higher, the number of permutations possible was very high. Even so, it was hypothesized that different patterns of scores would predict certain risks in 1990 accurately, while other patterns would not predict any risk accurately at all.

This search for effective patterns was just that, a search. The process was not theory driven, it was trial and error, in the main. Information collected in 1988 had been organized around factors identified in earlier analyses, and it was the information produced by indications of risk on various items associated with particular factors that was arranged in patterns that served as a basis for trying to determine predictability. At some point in the future, theory might be useful in seeking better predictions. In the effort outlined here, empiricism governed the search for patterns with which to make accurate predictions.

Table 54 through 66 in appendix F describe the various patterns of 1988 sub-scale scores that were reasonably accurate in predicting risk status, as evidenced in specific instances of risk reported in 1990 (student was failing two or more courses in school, student was receiving all Ds and Fs on his or her report card, student had reading test scores that were below the 20th percentile, student had been retained in grade, student had been arrested, student used drugs, student had been physically or sexually abused, student used alcohol, or student had dropped out of school).

Review the cross-tabulation concept described in procedures, step 14 before examining the data outlined in appendix F. As you study the data, note that some of the numbers are very small. Out of the follow-up sample of 739 students (fairly evenly divided between sixth-graders, ninth-graders, and 12th-graders), 151 students had failed two or more courses in school, but only 37 had dropped out of school, only 14 were on drugs, only 23 had been abused, and only 34 used alcohol, according to the information provided by teachers.

The following patterns were not effective in predicting risk of any kind:

FAIL 88 >1 or	PAIN 88 >1 or	HOME 88 >3
FAIL 88 >1 and	HOME 88 >1 and	PAIN 88 >0
FAIL 88 >0 and	HOME 88 >1 and	PAIN 88 >0
FAIL 88 >1 and	HOME 88 >0 and	PAIN 88 >0
FAIL 88 >0 and	HOME 88 >0 and	PAIN 88 >0
HOME 88 >2 and	PAIN 88 >0	
HOME 88 >1 and	PAIN 88 >0	
HOME 88 >0 and	PAIN 88 >0	
HOME 88 >2 and	FAIL 88 >2	
HOME 88 >1 and	FAIL 88 >2	
HOME 88 >0 and	FAIL 88 >2	
PAIN 88 >0 and	FAIL 88 >1	
PAIN 88 >0 and	FAIL 88 >0	

FAIL 88 >2
PAIN 88 >0
HOME 88 >0
HOME 88 >1
HOME 88 >2

In the next chapter, one interpretation of what these data seem to mean will be developed in detail.

CHAPTER 3

INTERPRETING THE FINDINGS

This book describes a study designed to assess risk and predict risk over time among young people in school. Risk, of course, is part of life.

Not all young people who are at risk will grow up to be unsuccessful or encounter insurmountable problems or failure as adults. Not all people who are not at risk when they are young will grow up and lead successful, meaningful, enriching lives. Risk itself is problematic and unfolding, and the extent to which risk is a factor in people's lives changes as people and circumstances change.

Even so, trying to ascertain the extent or nature of risk at any given point in time is reasonable, and trying to predict risk accurately and consistently over time is both appropriate and worthwhile. This book describes one effort to assess and predict risk among young people in school.

Recall the four questions that gave direction to the Phi Delta Kappa Study of Students At Risk:

Who is at risk?

What are they like?

What are the schools doing to help those students?

How effective are those efforts?

Our purpose in this volume has been to try to answer the first two questions. If we pose the first two questions as one — Who is at risk, and what are they like? — the information presented here gives us some sense of the nature and degree of risk that affects young people in schools today.

What are the answers to those two questions? From information about more than 21,000 students in 276 schools across America, the answer would have to be: many children are at risk, and they are like children everywhere, except that each incidence of risk complicates a child's existence and may jeopardize his or her future in diverse but unknown ways.

A study of the tabular and graphic material included in the appendices of this book suggests three general conclusions. First, if a child has experienced risk in one area, the odds are overwhelming that that youngster has also experienced risk in other areas. Second, an instrument was developed — a scale to ascertain risk — that may be useful to educators, if it is used judiciously. Third, risks that confront children might be likened to risks that confront adults, in terms of what we know about the causes of risk, what can be done to help those at risk, and the possibility and probability of success in our efforts to help. Each of these conclusions is discussed below.

Experiencing Risk

Review the tables described in appendix D and the charts in appendix G. As you page through those tables and charts, note the general pattern: children who were at risk on one thing were consistently more at risk on other things. That pattern is unmistakable. Further, the proportional difference, overall, is about two to one. A youngster who was at risk on one item was generally about twice as likely to be at risk on every other item as a youngster who was not at risk on the first item.

Consider an illustration. Students who were suspended from school were considered to be at risk, according to the literature reviewed (suspended from school was one of the risk items used

in this study). Chart 1 in appendix G presents graphic information, comparing students who were suspended from school with students who were not suspended, on nine items of the personal pain factor detailed in chapter two. Table 10 in appendix D shows the same information in tabular form.

When asked, "Did the student attempt suicide during the past year?", teachers indicated that 4% of the students who had been suspended from school had attempted suicide, but less than 1% of the students who had not been suspended from school had made such an attempt.

When they were asked, "Did a pregnancy occur during the past year?", teachers indicated that more than 3% of the students who had been suspended from school had been involved in a pregnancy, but less than 1% of the students who had not been suspended had been so involved.

Asked whether or not specific students sold drugs, the same pattern appeared. More than 5% of the students suspended from school had sold drugs, but less than 1% of those not suspended had sold drugs.

When teachers were asked whether a particular student used drugs, they indicated that 20% of those suspended from school had used drugs, but less than 2% of those not suspended had used drugs.

"Is there evidence that anybody in the family has been using drugs or engaged in substance abuse of any kind during the past year?" In responding to that question, teachers identified 14% of the students who had been suspended as coming from families that used drugs, and 3% of the students not suspended as coming from families that used drugs.

"Is there evidence that the student has been drinking alcohol during the past year?" Teachers provided information that 25% of those who had been suspended from school had used alcohol, but only 3% of those not suspended had used alcohol.

Another question asked about evidence that either parent drank excessively or was an alcoholic during the past year. Teachers responded Yes for almost 14% of students who had been suspended from school, but Yes for only 3% of the students who had not been suspended.

"Is there evidence that the student was arrested or convicted for any illegal activity during the past year?" was another question. Teachers indicated that 10% of the students suspended from school had been arrested, but fewer than 1% of the students not suspended had been arrested.

More than 7% of the students suspended from school had been sexually or physically abused, whereas less than 2% of those not suspended had been abused.

All of the figures cited here come from one chart, chart 1 in appendix G. There are 170 such charts. They all tell the same story: children at risk on one item were more likely to be at risk on every other item than children not at risk on that item.

At one point in the study we thought about titling this volume *Twice As Likely*, because that seemed to be the general pattern reflected in the data reported here. Students at risk on one item were about twice as likely to be at risk on every other item as students not at risk on a particular item. That is an important generalization, perhaps the most important point that comes out of this study.

Risk is pervasive. Risk manifests itself in general ways. Although risk was studied in specific terms, the evidence suggests that risk shows up "across the board." To generalize beyond this study, if educators have evidence that a student is at risk in any way, the odds are overwhelming that that student is also at risk in other ways.

A Scale to Assess Risk

We began this study by reviewing research previously published to identify things that had to be taken into consideration if we were to comprehend and cope with risk in a realistic way.

We examined instruments that other researchers used. We explored the possibility of asking students to provide information about themselves and their family situation on a self-report form. We reviewed data from the U.S. Census Bureau related to risk among young people of school age. We studied definitions and procedures different school districts employed. We talked with practitioners about the problem. We finally decided to develop and use our own instrument to identify and measure risk among students in school.

The decision to develop and use our own instrument for assessing risk was made deliberately but cautiously. We were hesitant to move into the area of instrument development. We recognized the difficulties in developing a scale that would be valid, reliable, and practical to use.

Most of the existing definitions and procedures for ascertaining risk among young people were more narrow than our view of risk. Most school districts used information that related to risk only in school (poor grades, excessive absences, retained in grade); they did not consider things that affected a child's life outside the school (conflict in the home, drugs, gangs).

Our original notion — a child is at risk if that child is likely to fail at school or fail at life — seemed both reasonable and defensible as a general definition of risk, but we were unable to find valid instruments or procedures for assessing risk defined that broadly. In addition, problems associated with procuring sensitive information from thousands of students in hundreds of schools in confidential ways forced us "to the drawing board," so to speak. We decided to develop our own scale.

We began the task of instrument development with several assumptions in mind: some theoretical, some empirical, some practical. We wanted an instrument that would capture the life of the child, as best we could capture it, so those things that affected young people in negative ways would not be left out. We wanted a scale that previous research suggested was on target in that it dealt with things other researchers had found to be important in defining and assessing risk. We wanted a procedure that would be both interesting and useful for those who would participate in data collection; we hoped they would broaden and deepen their understanding of risk and of research.

We concluded that the instrument to be developed should be objective, standardized, and rooted in previous research findings. We also felt that the instrument to be developed should be of such a nature that experienced professionals who knew each student well and who had access to students' records in school could provide information about those students. This process was selected rather than asking students to respond (either in an interview or to a written instrument) because of sensitive areas and confidentiality, but also because we had confidence in experienced professional's perceptions of the students in their care. Appendix B describes how we made those ideas operational.

As outlined in chapter two, we initially developed a protocol instrument that included 45 questions, plus certain demographic items. Following factor analyses, the number of items was reduced to 34, then reduced again (by combining certain items) to a 24-item scale (see appendix C). The instrument has never been used in this format, but we feel confident that the questions are good questions. They deal with areas of a young person's life that are clearly related to risk, and the content of each item differentiates among students in terms of presence or absence of risk. We also feel that asking professionals to provide information about students they know well and for whom they have access to records in the school is an appropriate procedure.

Using these questions, we were able to predict school dropouts in 1990 from data collected in 1988. Because several patterns of information were reasonably effective in predicting dropouts, the ultimate possibilities are not yet clear. We also predicted low grades in school, drug use, and other risk behaviors. Those are all steps in the right direction, but such predictions must be repli-

cated in other studies, with other students, and in different situations. Furthermore, the particular patterns of scores that contributed to each specific prediction must be verified by future research, too.

There is no doubt that our procedures for collecting information about risk among students in school is conservative in that risk was always under-identified rather than over-identified. There is more risk "out there" than we found. The procedures directed teachers *not* to provide information if they did not have evidence of some kind regarding the question asked, "in the student's folder, in the school's records, or in the teacher's experience."

We encourage you to use the Risk Scale in your own schools, but use it with sensitivity and caution. Consider it experimental. Train teachers to use the scale and the Risk Template described on page 24 to identify youngsters who may need special attention in the same way we trained teachers (see appendix B).

Verify the questions in the scale against criteria that are defensible, but do not jump to conclusions on the basis of information generated by the scale. There are no norms, and we are not certain what being at risk according to this scale means. Future research will help along that line.

Even so, we are confident that the Risk Scale focuses on the right areas and asks the right questions. Other items, such as low birth weight, working more than 20 hours a week, lead poisoning, need to be added and verified.

Educators cannot help young people unless they know precisely what kinds of problems those young people face day after day. This instrument should prove helpful to teachers and administrators. Work with it carefully, thoughtfully, and experimentally. Keep track of what you find. Compare your results with criteria that can be justified. Share your findings with us and others. Over time, we can all learn more about students at risk than we currently know. Understanding is the stepping stone to more effective professional efforts.

Thinking About Risk in Different Ways

Life involves different kinds of risk: financial risks, health risks, and social risks, to name a few. Some risks such as illness or depression are accompanied by pain. Some risks are self-imposed, such as use of drugs or attempts at suicide. Some risks are imposed by others (alcoholic parents, retention in grade). Still other risks are a function of the environment in which we live (smog in the air, pollution in the water, prejudice in the community).

If the factors that contribute to risk or the movement toward risk are ignored, the probability of negative consequences is increased. If factors that contribute to risk or the movement toward risk are acknowledged and changed, the probability of negative consequences is decreased.

Consider cardiovascular disease and death from heart attack in America as an illustration. More people die from cardiovascular disease and heart attack than any other cause. Given those facts, more people are at risk of death from cardiovascular disease and heart attack than from any other single cause.⁴

Research into this problem has identified five factors that contribute to death from cardiovascular disease and heart attack — heredity, smoking, obesity, diet, and exercise. Each factor includes several specifics. Diet, for example, involves such things as amount and type of fat consumed, salt intake, caloric intake, and amount and type of cholesterol-producing foods consumed. Exercise includes such things as the type of exercise, frequency of exercise, duration of exercise, and the like.

Logic and research have separated these factors into two groups: those that can be changed (smoking, obesity, diet, and exercise), and that factor which is not amenable to influence (heredity). To complicate things, research suggests that heredity accounts for about three-fourths of the problem, while smoking, obesity, diet, and exercise account for about one-fourth of the problem.

The research reported here suggests that a similar situation may exist among students at risk. Five factors were identified: personal pain, academic failure, family tragedy, family instability, and family socioeconomic situation. Three of the factors — family tragedy, family instability, and family socioeconomic situation — are beyond the sphere of influence of the school. This study has not documented the extent to which those family factors cause the problems that young people face, but it is considerable.

The other two factors — personal pain and academic failure — are subject to influence by the school. Most of the specific items that comprise the personal pain factor (use of drugs, use of alcohol, pregnancy, attempts at suicide) are uniquely personal, but because students come to school, the school has some opportunity to provide information, counseling, support, and referral services. And those items that comprise the academic failure factor (low reading test scores, negative sense of self-esteem, retained in grade) are directly under the control of teachers and administrators.

Return now to the problem of death from cardiovascular disease and heart attack. Three things seem to have developed in the fields of medicine and public health. First, people in those fields learned to focus their energies on the factors over which they had control. Second, those same people took the long view. Third, they found a way to marshal the resources of the culture to educate the total population to the risk factors involved.

Professionals in the fields of medicine and public health have apparently taken two simultaneous tacks: they worked to understand that factor over which they have no influence (heredity), and they worked creatively and energetically to manipulate those factors over which they had some control (smoking, obesity, diet, and exercise).

Professionals in these fields did not give up hope. They were not overwhelmed by the odds. They did not say, "there is nothing I can do." They worked persistently and imaginatively to understand how heredity affected the incidence and onset of cardiovascular disease and heart attack, and they manipulated variables over which they had control, then studied the effects of those variations under controlled circumstances over a long period of time. And these efforts have paid off. Deaths from cardiovascular disease and heart attack have dropped steadily during the past half century.⁵

Second, professionals in the fields of medicine and public health also have committed themselves to the "long-haul attitude." Somehow, in their practice or training, or both, physicians and public health workers have acquired a long-term perspective. They realize that, in the long run, they always fail because all people die, but these professionals have either adopted or developed an attitude — a way of approaching things — that says: "I've got the rest of my life to make things better." They do not seem to think in terms of this week or this month or this year to get things done.

People in medicine know, of course, that time is almost always on the side of patients, in the short run, and against patients, in the long run. That is, most physical ailments and illnesses, left alone, will disappear with time; the body's own systems function in remarkable ways to restore health and harmony to the individual's being. In the long run, of course, people always die, and physicians understand that their helping role is to work effectively in the meantime, which is always now. But they have confidence and hope that things will get better if they take a long-term view.

Finally, people in medicine and public health have also worked to help everyone know about and understand the factors that affect cardiovascular disease and heart attack. Everyone knows that

smoking is harmful to health. Everyone knows that being overweight is detrimental to health. Everyone knows that proper diet and regular exercise are central to a long and healthy life. Everybody knows these things. Furthermore, most people even know the specifics involved — how much of which kinds of exercise or food are most beneficial. The culture taught us these things.

But the culture taught us these things because people in medicine and public health worked diligently over a long period of time with government agencies, newspapers, television, hospitals, policy makers, executives, researchers, and practitioners to provide information, resources, and encouragement to tackle the toughest health problem we faced as a people: cardiovascular disease and death from heart attack. Professionals led the way.

Something like that is needed in our approach to helping children at risk. Children are our greatest asset. They are our greatest resource. We must minimize risk and maximize achievement, broadly defined. It is important to our development and our survival as a people.

We dare not be overwhelmed by the odds, even though they are against us. We must not give up, even though most of the factors that contribute to risk lie outside the sphere of influence of the school. We have to take the long view, and we must find ways to work with institutions and individuals who can help us create awareness and understanding in the culture of what it means to each citizen for children to be at risk, what it means for society for children to be at risk, what it means for our economy for young people to be at risk, and what it means for our future as a nation. We all suffer loss when one child is diminished. We all stand to gain when each child achieves.

Growing up is risky business, and schools are not to blame. Schools must provide information and inspiration to help those outside the school to change, and schools and schooling must change, too.

We can convene the participants. We can encourage discussion. We can provide data. We can help negotiate differences. We can articulate possibilities. We can point out consequences. We can identify resources. We can advocate change. We can be the kinds of people that we want our children to become — knowledgeable, fact-oriented, committed, compassionate, persuasive, concerned. The time to start is now.

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1. Jack Frymier and Bruce Gansneder, "The Phi Delta Kappa Study of Students At Risk," *Phi Delta Kappan*, vol. 71, October 1989, pp. 142-146; and Jack Frymier, *A Study of Students At Risk: Collaborating to Do Research* (Bloomington, IN: Phi Delta Kappa, 1989).
 2. American Psychiatric Association. *Diagnostic and Statistical Manual of Mental Disorders*, Third Edition, Revised (Washington, DC: American Psychiatric Association, 1987).
 3. Jack Frymier. *A Study of Students At Risk: Collaborating to Do Research* (Bloomington, IN: Phi Delta Kappa, 1989), pp. 52-58.
 4. *Statistical Abstract of the United States, 1978* (Washington, DC: U.S. Department of Commerce, Bureau of the Census, 1978), p. 75, and *Statistical Abstract of the United States, 1991* (Washington, DC: U.S. Department of Commerce, Bureau of the Census, 1991), p. 83.
 5. *Ibid.*

APPENDIX A
HOW THE SCHOOLS WERE SELECTED

Job 2: Select Three Schools

Each chapter participating in the Phi Delta Kappa Study of Students At Risk will accomplish 13 big jobs between August 1, 1988, and June 1, 1989:

1. form a research committee
2. select three schools in the chapter's area
3. prepare (Kansas City training and local training)
4. interview the principal of each school
5. survey the teachers in each school
6. apply Holding Power Statistic in the high school
7. write a narrative report about each school
8. collect information about students in each school
9. do a case study of one student
10. do at least one optional project
11. (perhaps) do further analyses of data
12. discuss the data at a district-level meeting
13. disseminate research results

Jobs 1 and 2 must be accomplished before October 1, 1988. Jobs 3 through 8 must be completed before December 1, 1988. Jobs 9 and 10 must be finished before February 1, 1989. Jobs 11 and 12 must be accomplished before June 1, 1989. Job 13 must be worked on before and after March, 1989.

In working on each of these 13 jobs, you will have to complete a number of tasks. *The instructions in this document pertain only to Job 2: Select Three Schools in the Chapter's Area.* This job must be completed before you can do any of the other jobs that follow.

The job here is to select three schools in your chapter's geographical area: one elementary-level school, one junior high or middle-level school, and one senior high school. To select these three schools, you must accomplish six tasks. The tasks are described below:

1. assemble your research committee
2. define the area served by your chapter
3. review the characteristics of the area
4. select three schools that represent the area
5. describe how you selected the three schools
6. send names of superintendents to PDK

Task 1: Assemble Your Research Committee. Each participating chapter of Phi Delta Kappa must have a working committee of researchers to accomplish this project. Assemble that group of Kappans to assist you in selecting the three schools in which you will collect data for this project, according to the instructions provided here. Do not make these decisions unilaterally on your own.

Experienced professionals, working together, can make valid judgments about various factors involved in studying students at risk. In selecting three schools in your area, draw upon the experience, training, knowledge, and professional know how of the people on your chapter's research committee to establish the broadest, most solid base for making judgments during the course of the project.

Assemble your committee, have each member read these instructions carefully, then discuss each point until you reach consensus regarding what you are going to do.

Task 2: Define the Area Served by Your Chapter. The first judgment you must make is to define the boundaries of the area served by your chapter. This definition need not be precise, but you should

have a fairly good idea of which communities and which school districts your chapter serves. It is from this area that you will select three schools.

Ask yourself the following kinds of questions:

1. How big a geographical area are we talking about?
2. How many districts are included within that area?
3. Approximately how many school buildings?

Task 3: Review the Characteristics of the Area. Meeting as a committee, review all that you know and can learn about the area served by your chapter of Phi Delta Kappa.

Consider the characteristics of the various school districts that make up your area: size of districts, number of buildings, age of buildings, nature of programs, number and type of students served, and the age and experience of faculty members. Consider the traditions, philosophies, leadership, financial support, and other resources available to the schools.

Consider also the demographic factors and changes that have occurred in your community in recent years; consider the racial and cultural diversity present. Also consider the economic and social factors that manifest themselves in the community: employment opportunities, wages, industries, housing, transportation, communication, and government. Further, consider the liabilities evident in the area: any deterioration of various segments of the community, debt, unemployment, morale, degree and nature of racial/ethnic conflict, and the like.

Task 4: Select Three Schools that Represent the Area. After meeting together as a committee, reviewing this document carefully and thoughtfully, and examining the ramifications inherent in the five criteria specified below, select three schools that are representative of the area your chapter serves. The key word is representative: the schools that you select should be *representative* of the area as a whole.

For example, if your chapter serves a metropolitan area that includes a large urban school district surrounded by several suburban districts, do *not* select three schools from the suburban districts and do *not* select three schools from the large urban district. Consider the percentage of students in the largest district in comparison to the percentage of students in the other districts. Typically, that would mean no more than one school per district, but that is not a hard rule. *Make every effort to select three schools that represent the area as a whole.* That could mean one school from the large urban district, one school from a large suburban district, and another school from a small suburban district.

If your chapter serves a rural area, the same point applies: select schools that are truly representative of the area your chapter serves.

In selecting schools, there are five criteria to consider:

1. the schools should be public schools
2. the schools should include appropriate grade levels
3. cultural and geographical factors
4. the school should be accessible (site entry)
5. negative considerations

Each of these criteria is discussed below.

The basic purpose of Phi Delta Kappa is to promote quality education, especially publicly supported education. There are many kinds of schools throughout North America, but given Phi Delta Kappa's commitment to *public* education, you are asked to select three *public* schools from which to collect data. That is the first criterion. (Note: If you want to study a private school as an optional project under job 10, that is perfectly appropriate.)

The second criterion is one of grade level. Schools are organized in various ways. We intend to collect data from professionals regarding 300 students, about 100 or so at one grade level in each of three schools — *fourth grade, seventh grade, and 10th grade* — so you should select schools in which the grade level specified would clearly be thought of as elementary level or middle level or senior high level in the schools involved. And if at all possible, *select a high school that includes grades 9 through 12* rather than a 9-10 or 10-12 or a 7-12 school.

The third criterion relates to cultural factors evident within your general area. What proportion of the students are white, black, Native American, Hispanic, Asian, advantaged, disadvantaged, and so on.

Each Phi Delta Kappa chapter serves a unique area, culturally and geographically. *Your task is to select three schools that are representative of the area, culturally and geographically.*

Because this project is being done by chapters that volunteered to participate, we will not be able to justify our sample of schools or students as representative or random in the statistical sense of those terms. We will not be able to make statistical inferences from the data and generalize to the population as a whole. However, we will describe the areas and schools from which we draw the data and report our findings in great detail, and we will encourage readers to make their own inferences based on the number and kinds of schools, students, teachers, administrators, and communities from which the data are drawn.

The fourth criterion relates to willingness to become involved. You must select schools in which the administrators and teachers are willing to be a part of this study. The professionals who agree to participate will probably be people who tolerate intrusion from outside because they want to learn something about their students and themselves.

At the very least, people in participating schools will want to know "What's in it for us?" You will have to answer that question satisfactorily. The data you collect will enable each school to get a detailed report — an elaborate profile — on each of the students (approximately 100) about whom information will be obtained. Your chapter will also be able to provide each participating school with precise data about that school in comparison to 100 other schools at the same grade level. Further, the professionals at each school will know that they are participating in a major national study of an important problem area in education.

You will not be asked to collect data from students, except in the case study. You will be asked to collect data about students. However, you will not take any information out of the school that has students' names on the data sheets. The data collection process will require you to record information about students on matrix data sheets according to procedures in which students are identified by name and ID number, but *those matrix data sheets will never leave the building.* You will take information about students out of the building on answer sheets in which students have been identified by ID number, but *only the school will know which ID numbers apply to which students.*

Think the question "What's in it for us?" through carefully. You must have agreement with the principal and others that they are willing to participate.

In making these arrangements, you will probably be confronted with the problem (which is also an advantage) of familiarity. Your inclination will be to approach people you know, perhaps people in the same school district in which you work. Do *not* make your basic decisions about which schools should be included exclusively or primarily on the basis of personal or professional familiarity or relationships. Select schools representative of the area your chapter serves and in which the principal and teachers are willing to be a part of this collaborative project.

Now, the negative criterion. *Do not select special schools* of any kind: vocational schools, magnet schools, schools for the retarded, schools for the gifted, or schools that serve only delinquent or incorrigible students. Obviously such schools include students who are at risk, but select schools for this study that are *typical public schools* rather than special institutions of any kind.

Given all of these considerations, select three schools that represent the area your chapter serves. Select the three schools in your area carefully, according to the criteria and processes described

here, then ask the principal in those schools to assist you in this project. Provide that person with the one-page description, "A Study of Students At Risk," included at the end of this job. Explain that the study is sponsored by Phi Delta Kappa, and that no school or individual within a school will be identified or identifiable, unless the people in that school agree. Note that the superintendent of each district (and the principal, if he or she desires) will receive an official letter from Phi Delta Kappa expressing appreciation to them for their willingness to participate in the project. Explain also that the basic purpose of this project is to answer four questions:

1. Who is at risk?
2. What are they like?
3. What is the school doing to help these students?
4. How effective are those efforts?

Secure the agreement of the principal for his or her school to be a part of this project.

Task 5: Describe How You Selected the Three Schools. Because each chapter of Phi Delta Kappa will accomplish these tasks and apply these criteria in their own unique way, it is important for each chapter to prepare a *brief* narrative description (2 to 5 pages) of exactly how the schools were selected. In that narrative, address the following questions:

1. How did you form the local research committee?
2. Who serves on the committee (qualifications)?
3. What kinds of evidence or data did you consider?
4. How did you apply the criteria specified?
5. What kinds of problems did you encounter?
6. How did you resolve those problems?

Task 6: Send Names of Superintendents to PDK. After you select three schools, send the names of the superintendents in the districts involved to Jack Frymier at Phi Delta Kappa headquarters. He will send a letter to those people expressing appreciation to them for their willingness to participate in the study. If you want a similar letter sent to the principal of each school, include those names on the list.

Summary: Each chapter of Phi Delta Kappa that participates in A Study of Students At Risk must select three public schools that represent the area the chapter serves: an elementary-level school, a middle-level school, and a senior high school. In selecting these three schools, each chapter must do six things: assemble its research committee, define the area served by the chapter, review the general and special characteristics of that area, select three schools that represent the area, prepare a brief narrative description of what they did and how they did it, and send superintendents' names to headquarters.

Selecting schools for this study is very important. Please accomplish this job with great care.

Note: Attached to these instructions is a one-page statement about this study that can be reproduced and shared with principals and others as you go about the job of selecting schools.

A Study of Students At Risk

People are concerned about their children. The pace and nature of society today creates demands and opportunities for young people that differ from the demands and opportunities of earlier times. Some children cope with these demands and opportunities effectively; they are successful. Others have difficulty; they fail. And success and failure characterize the lives of all children, irrespective of who they are or where they come from.

Young people may succeed or fail, in school or life. All children need assistance to succeed. If there is even a likelihood that they might fail, they need special assistance. Children who might fail — in school or life — are thought to be at risk.

Children who contemplate or attempt suicide are at risk. Children who peddle drugs, mug old people, steal cars, or rob stores are at risk. Children who engage in sexual activity, use drugs, or drink alcohol are at risk. Children who are abused — sexually, physically, or emotionally — by parents, grandparents, other adults, or peers are at risk. And children who miss school, fail to go to school, fail to achieve in school, or fail at school are also at risk.

Schools exist to help young people learn. Children need all of the help that they can get — from home, society, and school — to acquire the understandings, skills, and attitudes that will enable them to realize their own potential; to help them succeed in school and succeed in life.

Phi Delta Kappa is committed to the idea of helping people learn; of helping people succeed in school and succeed in life. Its only purpose, as stated in its constitution, is "to promote quality education, especially publicly supported education." This project, which was designed to achieve that end, centers on four questions regarding students in school:

1. Who is at risk?
2. What are they like?
3. What is the school doing to help these students?
4. How effective are those efforts?

A Study of Students At Risk will involve hundreds of members of Phi Delta Kappa, along with other professionals, in three hundred schools throughout one hundred communities in North America to produce information that will help provide answers to the questions above.

APPENDIX B
HOW INFORMATION WAS COLLECTED

The following surveys are extracted from the *Manual of Instruction for A Study of Students At Risk*. The instruments include:

- Job 4: Principal interview
- Job 5: Teacher survey
- Job 8: Student information instrument

The manual may be purchased from the Center for Evaluation, Development, and Research, Phi Delta Kappa Headquarters, P.O. Box 789, Bloomington, Indiana 47402-0789.

Job 4: Interview the Principal of Each School

The instructions in this document pertain only to job 4 above: Interview the Principal of Each School.

After you select three schools in your area from which to collect data for the study, make arrangements with the principal of each building to spend two or three hours with you in an interview session. Give each principal a copy of the questions included with these materials, and tell him or her that this is the information you hope to collect during the interview. Ask the principal to answer the questions ahead of time. However, *record the principal's responses during the interview* on your copy. Do not pick up the copy you gave the principal to review earlier (leave that copy with the principal), even if that person has answered the questions on his or her own copy. Be sure to ask each question directly so you can hear the person elaborate on his or her responses to any question, and note those elaborations, if they occur.

Your job is to get as much information as you can from the principal about enrollments, policies, the community, staff, and students. To do this, you must accomplish three tasks and do two other things:

1. schedule an interview
2. interview the principal
3. record the principal's responses

After that, you need to confirm the arrangements for giving the teacher survey and confirm the meeting date for your team to assess the students at one grade level.

Task 1: Schedule an Interview. In selecting each of the three schools in your area from which to collect data, you will already have established a working relationship with the principals in those buildings. Call each principal and set a date on which to meet with each person individually. Allow for at least half a day to conduct the interview. Remember, *give each principal a copy of the questions several days beforehand.* Arrange to conduct the interviews shortly after October 10 so you will have time to distribute the teacher survey forms (job 5), apply holding power statistic (job 6), collect information about students (job 8), and be able to send all data to Bloomington before November 30th.

Task 2: Interview the Principal. Meet each principal at the appointed time. Arrange for a quiet place where there will be no interruptions. Explain again that the basic purpose of the study is to try to answer four questions about students in that school:

1. Who is at risk?
2. What are they like?
3. What is the school doing to help these students?
4. How effective are these efforts?

Try to put the principal at ease. Express gratitude for his or her cooperation in this project, and promise to meet with the principal (and perhaps the staff) after the data have been analyzed to provide a detailed report of the data obtained from this school and the data obtained from all 300 schools.

Explain that we need the name of the principal and the school, and the address of the school and phone number, because we hope to follow up on this research in future years and would like to be able to get back to the school without difficulty. Make it clear that *the name of the principal and school will not be released to anyone*, under any circumstances, but will be used only if we need to re-establish contact with the school at some point in the future. Finally, explain that all data will be recorded in terms of each Phi Delta Kappa chapter's number; that number will be the only visible identification code, once data have been entered into the computer.

Ask the principal to get out his or her copy of the questions, then proceed through the interview, one question at a time.

Task 3: Record the Principal's Responses. Record the responses of the principal carefully. Where necessary, ask for elaboration or documentation. On the open-ended questions, try to record the response verbatim, if possible. Read your recorded responses back to verify what the principal said.

At the end of the session, run through the total list of questions and ask for verification of each item. Thank the principal for his or her cooperation, and promise to meet later and review the data from that school in relation to the data from all schools.

Confirm the Teacher Survey Arrangements. Before you leave the principal's office, make arrangements with the principal to administer the teacher survey to all staff members within the school. If you made those arrangements earlier, verify the time, place, and how the survey will be passed out and collected. *The principal's interview should be conducted before the survey is distributed to teachers.*

Confirm the Date to Assess Students. An important part of this research will involve meeting with teachers and others in each building to review information about students at one grade level in the school (fourth grade, seventh grade, or 10th grade). That meeting will require one or two members of the Phi Delta Kappa research committee to meet with one or more members of the professional staff in each building to review the information available about several students in each school. You probably have made arrangements for the meeting with individual teachers and others already, but confirm the time (or times) with the principal before you leave the building.

The Principal Interview

1. Phi Delta Kappa Chapter Number _____
 Name of PDK Chapter _____
 Location of Chapter _____
 Name of Interviewer _____
 Name of District _____
 Name of School _____
 Street _____
 City, State, ZIP _____
 Name of Principal _____
 Telephone _____

2. School Level _____ Elementary _____ Middle _____ Senior

Record the total enrollment for this school *district* and this *school* as of October 1 for each of the following years (be exact):

	<i>District</i>	<i>School</i>
1980	3. _____	12. _____
1981	4. _____	13. _____
1982	5. _____	14. _____
1983	6. _____	15. _____
1984	7. _____	16. _____
1985	8. _____	17. _____
1986	9. _____	18. _____
1987	10. _____	19. _____
1988	11. _____	20. _____

21. Gender _____ Male _____ Female
22. Highest degree _____ Bachelors _____ Masters _____ Doctorate
23. How many years have you been principal at this school?
 _____ less than 1 year
 _____ 1 to 2 years
 _____ 3 to 4 years
 _____ 5 to 6 years
 _____ 7 or more years
24. Which term best describes you?
 _____ Asian
 _____ Black
 _____ Hispanic
 _____ White
 _____ Other

25. Circle grade levels: Pre K 1 2 3 4 5 6 7 8 9 10 11 12

26. Total number of *full-time* staff: _____ Total

Teachers	Males _____	Females _____	_____
Administrators	Males _____	Females _____	_____
Counselors	Males _____	Females _____	_____
	Total _____	_____	_____

27. Total number of *part-time* staff: _____ Total

Teachers	Males _____	Females _____	_____
Administrators	Males _____	Females _____	_____
Counselors	Males _____	Females _____	_____
	Total _____	_____	_____

	Large City	Suburb	Small City	Small Town	Rural
28. In what type of community is the school located?	_____	_____	_____	_____	_____

	White	Black	Hispanic	Asian	Other
29. Proportion of students in this school in terms of ethnic background (total 100%)	_____ %	_____ %	_____ %	_____ %	_____ %

	Professionals	Mgrs/Tech	Skilled labor	Unskilled labor	Unemployed
30. Socioeconomic background of students' families in this school (total 100%)	_____ %	_____ %	_____ %	_____ %	_____ %

	Very stable	Moderately stable	Moderately mobile	Very mobile
31. Describe the stability of this community (people moving in/out)	_____	_____	_____	_____

32. Circle if the school is: Public Parochial Independent

33. What percentage of students receive free or reduced lunch or breakfast? _____ %

34. How many students were *suspended* last year? _____

35. How many students were *expelled* last year? _____

36. Estimate percentage of students who *failed* one or more courses last year? _____

37. (Elementary only) How many students were *retained in grade* last year at each grade level?

Enrollment	Number Retained
K _____	_____
1 _____	_____
2 _____	_____
3 _____	_____
4 _____	_____
5 _____	_____
6 _____	_____

Estimate the degree to which each of the following is a problem among the students in your school:

	Not a serious problem	Somewhat serious problem	Very serious problem
38. Attendance	_____	_____	_____
39. Attitude toward school	_____	_____	_____
40. Completing assignments	_____	_____	_____
41. Arguments with teachers	_____	_____	_____
42. Fighting among students	_____	_____	_____
43. Assault of teachers	_____	_____	_____
44. Use of drugs by students	_____	_____	_____
45. Selling of drugs	_____	_____	_____
46. Alcohol use by students	_____	_____	_____
47. Sexual activity by students	_____	_____	_____
48. Pregnancy among girls	_____	_____	_____
49. Abused children	_____	_____	_____
50. Theft	_____	_____	_____
51. Racial conflict	_____	_____	_____
52. Classroom discipline	_____	_____	_____
53. School morale	_____	_____	_____

During the last few years, many states and school districts have taken steps to improve the quality of education for young people in schools. Sometimes these actions have been taken by state legislatures, sometimes by state boards of education, sometimes by state departments of education, and sometimes by local boards of education and superintendents.

The intent of these actions by states and local boards has been to make schools better. Would you respond to the changes that have occurred in three ways?

1. Did this change occur in your situation?
2. How do teachers feel about these changes?
3. How have the changes affected students?

	Did this occur?		How teachers feel			Effect on students		
54. Increase requirements for graduation	Yes	No	+	0	-	+	0	-
55. Increase requirements for teacher evaluation	Yes	No	+	0	-	+	0	-
56. Mandatory testing programs for students	Yes	No	+	0	-	+	0	-
57. Mandatory testing programs for teachers	Yes	No	+	0	-	+	0	-
58. Retain in grade those who do not achieve up to the "norm"	Yes	No	+	0	-	+	0	-
59. Restrict participation in extracurricular activities for those who do not achieve	Yes	No	+	0	-	+	0	-
60. More teacher involvement in decision making	Yes	No	+	0	-	+	0	-
61. More school-site autonomy	Yes	No	+	0	-	+	0	-
62. Improve working conditions for teachers	Yes	No	+	0	-	+	0	-

Suppose we posit a number line as portraying the absence or presence of a factor (1 = low, 9 = high)

Low					How				
1	2	3	4	5	6	7	8	9	

Suppose further that the following options reflect the *degree of diversity present within your school* on various factors:

- A. 1 — 9 (full range of variability)
- B. 1 — 5 (low end of scale, predominately)
- C. 5 — 9 (high end of scale, predominately)
- D. 3 — 7 (middle range, predominately)

Given the rationale above, how would you *describe the range or diversity among your students* on each of the following:

- 63. intelligence A B C D
- 64. motivation A B C D
- 65. experience (trips, etc.) A B C D
- 66. academic achievement A B C D

67. Which of the following options represents how you think teachers in this school ought to provide instruction?

- _____ each teacher should decide what to do with his or her students
- _____ there should be a common program, but each teacher should be encouraged to make variations for individual students
- _____ there should be a different but standard strategy for different types of students
- _____ there should be a common program that each teacher is expected to follow

Teachers and administrators generally have a cut-off point in their minds that triggers attention to students who may be at risk. Presented below are three different factors that schools use to alert themselves to problems among their students: absences, grades, and achievement scores. Where does your school draw the line regarding these things? *Circle the cut-off point for each factor.*

- | | | |
|--------------------------|---------------------------------|---|
| 68. | 69. | 70. |
| <i>Semester Absences</i> | <i>Semester Grades received</i> | <i>Below grade level Achievement scores</i> |
| A. 1-3 | A. all Cs or below | A. slightly |
| B. 4-6 | B. one D or F | B. one year |
| C. 7-9 | C. mostly Ds and Fs | C. 1 to 1½ years |
| D. 10+ | D. several Fs | D. 2 or more years |

Some students are at risk. Being at risk means being likely to fail at school or even at life. When you have students who are at risk, which of the following strategies do you *regularly use*? Also indicate *how effective each strategy is*, using the four-point scale below. Rate the effectiveness of every strategy, even if you do not use it regularly.

	<i>Do you do this regularly?</i>		<i>How effective is it?</i>			
	Yes	No	Not very 1	2	3	Very 4
71. smaller classes	___	___	___	___	___	___
72. computerized instruction	___	___	___	___	___	___
73. special teachers	___	___	___	___	___	___
74. peer tutoring	___	___	___	___	___	___
75. retain in grade	___	___	___	___	___	___
76. special education	___	___	___	___	___	___
77. vocational courses	___	___	___	___	___	___
78. alternative school	___	___	___	___	___	___
79. special study skills	___	___	___	___	___	___
80. special textbooks	___	___	___	___	___	___
81. place in low group	___	___	___	___	___	___
82. coping skills	___	___	___	___	___	___
83. flexible scheduling	___	___	___	___	___	___
84. individualized instruction	___	___	___	___	___	___
85. home tutoring	___	___	___	___	___	___
86. assign extra homework	___	___	___	___	___	___
87. thinking skills	___	___	___	___	___	___
88. restrict from sports	___	___	___	___	___	___
89. refer to psychologist	___	___	___	___	___	___
90. refer to social worker	___	___	___	___	___	___
91. confer with parents	___	___	___	___	___	___
92. more time on basic skills	___	___	___	___	___	___

	<i>Do you do this regularly?</i>		<i>How effective is it?</i>			
	Yes	No	Not very 1	2	3	Very 4
93. eliminate art and music	___	___	___	___	___	___
94. notify parents	___	___	___	___	___	___
95. Chapter I program	___	___	___	___	___	___
96. teacher aides	___	___	___	___	___	___
97. say "leave at age 16"	___	___	___	___	___	___
98. before school programs	___	___	___	___	___	___
99. after school programs	___	___	___	___	___	___
100. summer school program	___	___	___	___	___	___
101. other (specify)	___	___	___	___	___	___

102. What percentage of your working time do you spend on the problems associated with students who are at risk?

- ___ less than 10 percent
- ___ 11 to 20 percent
- ___ 21 to 30 percent
- ___ 31 to 40 percent
- ___ 41 to 50 percent
- ___ more than 50 percent

103. Is the time that you spend working with at-risk students

- ___ very productive
- ___ somewhat productive
- ___ not very productive
- ___ not productive at all

How much influence does your school have over students':

	<i>Not very much</i>		<i>Great deal</i>	
	1	2	3	4
104. reading comprehension	1	2	3	4
105. mathematics skills	1	2	3	4
106. writing skills	1	2	3	4
107. listening skills	1	2	3	4
108. daily attendance	1	2	3	4
109. general behavior in school	1	2	3	4
110. attitude toward school	1	2	3	4
111. completion of homework	1	2	3	4
112. attention in class	1	2	3	4
113. higher-order thinking skills	1	2	3	4

Please *rank order* the extent to which each of the groups listed (parents, teachers, and students) should be responsible for helping students acquire the learning or behavior specified.

- 1 = most responsible
2 = next most responsible
3 = least responsible

	Parents	Teachers	Students
114. reading comprehension	—	—	—
115. mathematics skills	—	—	—
116. writing skills	—	—	—
117. listening skills	—	—	—
118. daily attendance	—	—	—
119. general behavior in school	—	—	—
120. attitude toward school	—	—	—
121. completion of homework	—	—	—
122. attention in class	—	—	—
123. higher-order thinking skills	—	—	—

Below is a list of problems that students may be confronted with *outside of school*. Are your students *confronted more* or *confronted less* with the problems listed below than students at most other schools?

	Less			More	
	1	2	3	4	5
124. substance abuse	1	2	3	4	5
125. family discord	1	2	3	4	5
126. family instability	1	2	3	4	5
127. crime	1	2	3	4	5
128. alcohol abuse	1	2	3	4	5

Is it possible for you to help your students cope with these problems?

	Definitely no		Definitely yes	
	1	2	3	4
129. substance abuse	1	2	3	4
130. family discord	1	2	3	4
131. family instability	1	2	3	4
132. crime	1	2	3	4
133. alcohol abuse	1	2	3	4

How responsible do you feel for helping students cope with these problems?

	Not at all			Very
	1	2	3	4
134. substance abuse	1	2	3	4
135. family discord	1	2	3	4
136. family instability	1	2	3	4
137. crime	1	2	3	4
138. alcohol abuse	1	2	3	4

Rank order the extent to which each of the groups listed (parents, teachers, and students) should be responsible for helping students cope with these problems.

- 1 = most responsible
- 2 = next most responsible
- 3 = least responsible

	Parents	Teachers	Students
139. substance abuse	_____	_____	_____
140. family discord	_____	_____	_____
141. family instability	_____	_____	_____
142. crime	_____	_____	_____
143. alcohol abuse	_____	_____	_____

All levels

- 144. What is your primary role as principal of this school?
- 145. Is there a special incentive in your district or in your school to work with students who are most at risk?
- 146. What is the nature of that incentive?
- 147. Does the incentive work?
- 148. What is your perception of how teachers feel about working with at-risk students?
- 149. What is the process used to provide at-risk students the needed help to address their at-risk characteristic? Please address academic and non-academic characteristics.
- 150. As principal, what role do you play in addressing at-risk students' needs?
- 151. What at-risk characteristic is most often associated with your at-risk students?
- 152. Does the district have a formal plan and written policies for dealing with students who are at risk? If yes, what is that plan?

Secondary

153. Describe the way students are assigned to classes in your school.
154. Are at-risk students automatically assigned to certain classes? If so, what are they?
155. What kind of classes are at-risk students assigned to?
- A. regular
 - B. remedial
 - C. basic skills
156. How do you feel about compulsory education?

Elementary

157. How is the composition of the classes formed each year in your school? (Probe) What process do you use to assign students to classes and teachers each year?
158. Does the class formation process take into account whether or not a student is at risk? If so, how?
159. What is the most important academic skill students must acquire for school success?

Job 5: Survey the Teachers in Each School

In working on each of these 13 jobs, you must complete a number of tasks. *The instructions in this document you are now reading pertain only to job 5: survey the teachers in each school.*

The job of surveying the teachers in each school requires you to accomplish four tasks:

1. arrange for the survey to occur
2. distribute survey materials
3. collect answer blanks
4. turn answer blanks the same way and return them

Each of these tasks is described in detail below.

Task 1: Arrange for the Survey to Occur. In talking with the principal of each school and making arrangements for that school to be included in the study of students at risk, you will have discussed the need to survey the teachers in his or her school already. Job 1, for example, overviewed what you have to do in the entire project, and surveying the teachers was described in that overview. In accomplishing job 4, interview the principal, you were directed to make arrangements to survey the teachers at the conclusion of that interview.

Complete the arrangements to survey the teachers. If possible, arrange to have the teachers respond to the survey at a regularly scheduled time in which they all meet together (at a faculty meeting, for example). It will take most people 30 to 60 minutes to complete the survey.

If you cannot meet with the staff to distribute and collect responses at a regularly scheduled meeting, arrange to distribute the survey forms, answer blanks, and a one-page statement of purpose and instructions through the teachers' mail distribution system in the school.

Task 2: Distribute the Materials. Each teacher will receive a specially printed teacher survey instrument and a separate answer blank on which to respond. Each item is listed exactly as it appears in the final booklet, however, so you may refer to this version with confidence regarding the wording of items, or for other such considerations.

If the principal is willing to make time available during a regularly scheduled meeting, go to the meeting, distribute the materials, read the one-page purpose and instructions statement which emphasizes that names are not permitted, though the local PDK chapter number will be indicated. *Give all teachers the four-digit number of your Phi Delta Kappa chapter.* This number is important and must be filled in on each answer blank. Unless this number is entered, you will not get print-outs reporting how teachers in each school responded. Encourage the teachers to respond to the survey, then wait until they finish.

If the principal is unable or unwilling to allow you to distribute the survey instruments and collect responses at a meeting in which all teachers are present, place one teacher survey and one answer blank in each teacher's mail box in the school, along with a one-page statement of purpose and instructions about where and when to return the answer blanks.

Task 3: Collect "Answer Blanks." At the end of the meeting, or according to the time specified in the instructions if you distributed the survey instruments through the teachers' mail boxes, collect all answer blanks so they can be returned to Bloomington by the time specified.

After you collect the answer blanks, thank everyone for their assistance and leave the building. Take all of the answer blanks with you. Be conspicuous about the fact that you are not leaving any answer blanks with the principal or others at the school. Leave the teacher survey booklets, and ask the principal to keep them for future discussion (when you return with print-outs in the spring).

Task 4: Turn All Answer Blanks the Same Way. Before you send the answer blanks to Bloomington, please check to see that all have your PDK chapter number on them, and all are turned the same way for optical scanning. That will be a simple task for you. However, if we have to check each of 300 stacks of answer blanks to be certain that every one is turned the same way for scoring, it will be difficult for us to get the task done. Please help us by doing this task carefully.

Summary. Arrange to conduct the survey, distribute the materials, collect the answer blanks, and turn all answer blanks the same way before you send them to Phi Delta Kappa headquarters.

Statement of Purpose and Instructions

Phi Delta Kappa, a professional organization whose purpose is "to promote quality education, especially publicly supported education," is doing a study of students at risk. Your school has been selected as one of 300 schools in North America to be included in this study. Will you help us, please?

This questionnaire has been developed to determine teachers' perceptions of the problems of students who might be at risk.

Do not write your name or the name of your school on any materials, please. You can respond to this survey knowing that your answers will be completely confidential.

Please read the directions on the teacher survey carefully, then *record your answers on the answer blank* that has been provided. *Use a No. 2 lead pencil only.* Please answer every question. Mark the appropriate spaces carefully, but do not write on the answer blank. And do not use a pen. *Use a No. 2 pencil only.*

When you have finished, place your answer blank in the large manilla envelope that has been provided especially for that purpose.

The summarized results will be made available to the principal of this school later. Thank you very much.

Teacher Survey

This school is one of hundreds of schools throughout North America in which teachers are participating in a study of students at risk. The study is being conducted by Phi Delta Kappa, a professional organization in education.

The basic purpose of this portion of the study is to determine teachers' perceptions regarding students who may be at risk. A student is felt to be at risk if that student is in danger of failing in school or failing in life.

Do not write your name or the name of your school on the answer blank, and do not use a pen. Use a No. 2 pencil. Please answer every question carefully. Fill the appropriate circles on the answer blank completely. The questionnaire is fairly long, but it is easy to respond to.

Now, turn your answer blank so that the words, teacher survey, are positioned in the upper left-hand corner of the page, with places for responses to items one through 100 on the right side of the page.

Go on to the next page.

Subjects: On the left-hand portion of the page, below the directions, is this question: "What subjects are you currently teaching?" Mark all that apply. Also answer the question about certification.

Note: In the lower left-hand corner of the answer blank you will see a series of vertical columns marked PDK and then A through K. Mark the columns as follows:

PDK: Mark the four circles that represent the Phi Delta Kappa *chapter number* that will be given to you by the person who distributes the teacher survey forms. This will be a four-digit number.

A. *Age:* Indicate your age

B. *School level:*

- 1 = Elementary
- 2 = Middle or junior high
- 3 = Senior high

C. *Total years of teaching experience*

D. *Years at this school*

E. *Ethnic group to which you belong:*

- 1 = Asian
- 2 = Black
- 3 = Hispanic
- 4 = White
- 5 = Other

F. *Average size of your classes:*

- 1 = less than 15
- 2 = 16 to 20
- 3 = 21 to 25
- 4 = 26 to 30
- 5 = 31 to 35
- 6 = 36 or more

G. *Highest degree you hold:*

- 0 = No degree
- 1 = Bachelors
- 2 = Masters
- 3 = Masters + 15 semester hours
- 4 = Doctors

H. *Proportion of working time you spend with at-risk students:*

- 0 = less than 10 percent
- 1 = 11 to 20 percent
- 2 = 21 to 30 percent
- 3 = 31 to 40 percent
- 4 = 41 to 50 percent
- 5 = more than 50 percent

I. *How productive are your efforts with at-risk students?*

- 0 = not productive at all
- 1 = not very productive
- 2 = so-so/in-between
- 3 = fairly productive
- 4 = very productive

J. *How many students failed your course last year?*

- 0 = none
- 1 = less than 10 percent
- 2 = 11 to 25 percent
- 3 = 26 to 50 percent
- 4 = more than 50 percent

K. *How many of your students failed one or more courses last year?*

- 0 = none
- 1 = less than 10 percent
- 2 = 11 to 25 percent
- 3 = 26 to 50 percent
- 4 = more than 50 percent

Sex: Mark "M" if you are male or "F" if you are female.

Grade or education: Mark each grade level that you are currently teaching.

Answer the remaining questions by marking your answer blank in the appropriate place for each numbered item on the right hand side of the page, one through 100.

Compared to students in general, *rate the students you teach* on the following factors, according to the scale below:

	Below average			Above average	
	1	2	3	4	5
1. reading comprehension	1	2	3	4	5
2. mathematics skills	1	2	3	4	5
3. writing skills	1	2	3	4	5
4. listening skills	1	2	3	4	5
5. daily attendance	1	2	3	4	5
6. general behavior in school	1	2	3	4	5
7. attitude toward school	1	2	3	4	5
8. completion of homework	1	2	3	4	5
9. attention in class	1	2	3	4	5
10. higher-order thinking skills	1	2	3	4	5

How responsible do you feel for specific learnings or behaviors of the students you teach?

	Not very			Very
	1	2	3	4
11. reading comprehension	1	2	3	4
12. mathematics skills	1	2	3	4
13. writing skills	1	2	3	4
14. listening skills	1	2	3	4
15. daily attendance	1	2	3	4
16. general behavior in school	1	2	3	4
17. attitude toward school	1	2	3	4
18. completion of homework	1	2	3	4
19. attention in class	1	2	3	4
20. higher-order thinking skills	1	2	3	4

How much influence do you have over students':

	Not very much			Great deal
	1	2	3	4
21. reading comprehension	1	2	3	4
22. mathematics skills	1	2	3	4
23. writing skills	1	2	3	4
24. listening skills	1	2	3	4

	Not very much		Great deal	
	1	2	3	4
25. daily attendance	1	2	3	4
26. general behavior in school	1	2	3	4
27. attitude toward school	1	2	3	4
28. completion of homework	1	2	3	4
29. attention in class	1	2	3	4
30. higher-order thinking skills	1	2	3	4

Please indicate which of the groups listed (parents, teachers, or students) should be *most responsible for helping students* acquire the learning or behavior specified, according to the following key:

- 1 = parents
- 2 = teachers
- 3 = students

- 31. reading comprehension
- 32. mathematics skills
- 33. writing skills
- 34. listening skills
- 35. daily attendance
- 36. general behavior in school
- 37. attitude toward school
- 38. completion of homework
- 39. attention in class
- 40. higher-order thinking skills

Below is a list of problems that students may be confronted with outside of school. In terms of the problems listed below, are your students *confronted less* or *confronted more* than students at most other schools? Use the following scale:

	Less				More
	1	2	3	4	5
41. substance abuse	1	2	3	4	5
42. family discord	1	2	3	4	5
43. family instability	1	2	3	4	5
44. crime	1	2	3	4	5
45. alcohol abuse	1	2	3	4	5

Is it possible for you to help your students cope with these problems?

	Definitely no		Definitely yes	
	1	2	3	4
46. substance abuse	1	2	3	4
47. family discord	1	2	3	4
48. family instability	1	2	3	4
49. crime	1	2	3	4
50. alcohol abuse	1	2	3	4

How responsible do you feel for helping students cope with these problems?

	Not at all		Very	
	1	2	3	4
51. substance abuse	1	2	3	4
52. family discord	1	2	3	4
53. family instability	1	2	3	4
54. crime	1	2	3	4
55. alcohol abuse	1	2	3	4

Please indicate which of the groups listed (parents, teachers, or students) should be *most responsible* for helping students cope with the problems specified, according to the following key:

- 1 = parents
- 2 = teachers
- 3 = students

- 56. substance abuse _____
- 57. family discord _____
- 58. family instability _____
- 59. crime _____
- 60. alcohol abuse _____

Some students are at risk. Being at risk means being likely to fail at school or even at life. When you (means the teacher, not the school) have students who are at risk, *which of the following strategies do you regularly use?* Also indicate *how effective each strategy is*, using the four-point scale below. Rate the effectiveness of every strategy, even if you do not use it regularly.

	Do you do this regularly?		Is it effective?	
	Yes	No	Yes	No
61. smaller classes	_____	_____	_____	_____
62. computerized instruction	_____	_____	_____	_____
63. special teachers	_____	_____	_____	_____
64. peer tutoring	_____	_____	_____	_____

	<i>Do you do this regularly?</i>		<i>Is it effective?</i>	
	Yes	No	Yes	No
65. retain in grade	—	—	—	—
66. special education	—	—	—	—
67. vocational courses	—	—	—	—
68. alternative school	—	—	—	—
69. special study skills	—	—	—	—
70. special textbooks	—	—	—	—
71. place in low group	—	—	—	—
72. emphasize coping skills	—	—	—	—
73. flexible scheduling	—	—	—	—
74. individualized instruction	—	—	—	—
75. home tutoring	—	—	—	—
76. assign extra homework	—	—	—	—
77. emphasize thinking skills	—	—	—	—
78. restrict from sports	—	—	—	—
79. refer to psychologist	—	—	—	—
80. refer to social worker	—	—	—	—
81. confer with parents	—	—	—	—
82. more time on basic skills	—	—	—	—
83. eliminate art and music	—	—	—	—
84. notify parents	—	—	—	—
85. Chapter I program	—	—	—	—
86. teacher aides	—	—	—	—
87. say "leave at age 16"	—	—	—	—
88. before-school programs	—	—	—	—
89. after-school programs	—	—	—	—
90. summer-school program	—	—	—	—

Estimate the degree to which each of the following is a problem among the students you teach:

	<u>Not a</u> serious problem			<u>Very</u> serious problem	
	1	2	3	4	5
91. Attendance	1	2	3	4	5
92. Attitude toward school	1	2	3	4	5
93. Completing assignments	1	2	3	4	5
94. Arguments with teachers	1	2	3	4	5
95. Classroom discipline	1	2	3	4	5

Suppose we posit a number line as portraying the absence or presence of a factor (1 = low, 9 = high)

Low				High				
1	2	3	4	5	6	7	8	9

Suppose further that the following options reflect the *degree of diversity present within your school* on various factors:

- A. 1 — 9 (full range of variability)
- B. 1 — 5 (low end of scale, predominately)
- C. 5 — 9 (high end of scale, predominately)
- D. 3 — 7 (middle range, predominately)

Given the rationale above, how would you *describe the range of diversity among your students* on each of the following:

- | | | | | |
|------------------------------|---|---|---|---|
| 96. intelligence | A | B | C | D |
| 97. motivation | A | B | C | D |
| 98. experience (trips, etc.) | A | B | C | D |
| 99. academic achievement | A | B | C | D |
100. Which *one* of the following represents how you think teachers in this school ought to provide instruction?
- A. each teacher should decide what to do with his or her students
 - B. there should be a common program, but each teacher should be encouraged to make variations for individual students
 - C. there should be a different but standard strategy for different types of students
 - D. there should be a common program that each teacher is expected to follow

Job 8: Collect Information About Students

One of the most important jobs in the study will be to collect information from teachers and others about 100 students in each of three schools. This information will be used to determine the extent to which students are at risk. The instructions in the document you are now reading pertain only to *job 8: collect information about students in each school*. To collect this information, you must accomplish six tasks:

1. specify the students to be studied
2. meet with professionals who know the students best
3. review the information available about each student
4. record students' names and assign ID numbers
5. record information on "answer blanks"
6. ask principal to keep names and ID numbers

Each of these six tasks is described below.

Task 1: Specify the Students to be Studied. You will collect data on about 300 students. After you select three schools — one elementary school, one junior high or middle-level school, and one senior high school — collect data on about 100 students in each of those schools: 100 fourth-graders, 100 seventh-graders, and 100 10th-graders. If there are less than 100 fourth-graders in the school selected, study all of the fourth-graders, then divide what remains from 300 between the seventh- and 10th-grade so equal numbers of seventh- and 10th-grade students will be studied. Or, if there are fewer than 300 students in the three grade levels specified, study all of the students at those grade levels in the schools that you select.

For example, if the elementary school you selected has three classrooms of fourth-graders — about 75 students — study all of those fourth-graders, then study 110 seventh-graders and 115 10th-graders, or something close to that. Such a process means that you would study approximately 300 students in all.

Study students who are in intact groups, wherever possible (classroom groups), and select groups in which students are generally thought of as "typical" for that school (seventh-grade social studies students or 10th-grade English students).

Just as you were directed in job 2 not to select special schools, do not select students who are in special groups for inclusion in this study. Do not select students who have been assigned full-time to classrooms for the mentally retarded, for example. Do not select students who are assigned full-time to programs in alternative schools. Select typical students in the school.

Confer with the principal about these matters. Arrange with the principal, also, to meet with the people who are most directly responsible for working with each of the 100 or so students. Those people must have access to information that the school has available about each student. Also provide the principals with copies of appendices F and G for his or her examination.

Task 2: Meet With the Teachers and Other Professionals Who Know the Students Best. Schedule a meeting with the teachers and others who are most knowledgeable about the students involved. At the elementary level, that probably means meeting with a classroom teacher (and perhaps a guidance counselor) regarding all of the students in that one teacher's classroom. At the junior high or senior high school level, meeting with teachers and other professionals who know the students best probably means meeting with English teachers or homeroom teachers and the guidance counselors.

The people with whom you meet must have access to the students' cumulative folders, and they must have access to such things as attendance data, achievement data, family situation, and the like. The Phi Delta Kappa research team will *not* need to have direct access to that information, but

the teachers and others in the building must be able to provide information to the research team that is accurate and current.

Task 3: Review the Information Available About Each Student. One or two members of the Phi Delta Kappa research team and one or two teachers or other professionals in the building should meet together and review information available about each student included in the study. Schedule enough time to review the information about all of the students in each classroom at one sitting, if possible.

In preparing the teachers and others for this project, describe the process by which data about each student will be collected and how those data will be recorded. Briefly, the process will be as follows:

- a. students will be identified by name and ID number
- b. data will be recorded on an answer blank
- c. the school will keep the names and ID numbers
- d. Phi Delta Kappa will keep the answer blanks

The Phi Delta Kappa research team will provide each school with student ID number sheets. Each student will be listed by name and assigned an ID number. Various kinds of information about each student, (including the assigned ID number, but not the name) will be recorded on an information about students answer blank — one for each student studied.

The school will keep the student ID number sheets on which students are listed by name and ID number, and *Phi Delta Kappa will keep the information about students answer blanks* on which students are identified only by ID number. If additional information is needed about a particular student at some point in the future, it will be possible to go back to the school and have the principal identify the student.

The principal should be asked to keep the student ID number sheets in case of an eventuality such as described above. More importantly, however, the principal should be asked to keep the names and ID numbers for future research possibilities. Explain that this project is funded as a one-time research effort. Our hope, however, is to go back to these same schools in the next few years to follow up on students who are identified as being at risk. We are presently planning a longitudinal study of these same students, so it will be important for the school to maintain the names and ID numbers for research in future years.

Task 4: Record Students' Names and Assign ID Numbers. Attached to this document is one copy of a student ID number sheet. Names and ID numbers for 20 or more students can be recorded on each sheet. Your packet of materials includes 20 copies of this sheet, enough for school personnel to record the names and assigned ID numbers for more than 100 students in each of three schools.

First, have school personnel write the names of each student about whom you will be collecting information in the appropriate space down the left-hand side of the page.

Second, have school personnel assign each student an ID number, beginning with 001 for the first student up through 075, for example, if there are 75 students at the grade level you will be studying. You will be recording information about students from three different schools, but *always begin ID numbers with 001 for each school.* (Note: Since the PDK chapter number and grade level information will be recorded on each answer blank, we will always know the school from which the data came.)

Task 5: Record Information on Answer Blank. Review all of the information available to the teachers and others who are meeting with you. *Fill out one information about students answer blank for each student,* according to the instructions outlined in instructions for recording information about each student, which follows.

There are about 60 areas for which information is requested for each of 100 students at each grade level. In practical terms, this means that you will record about 6,000 bits of information for students at each grade level. Viewed that way, the task appears formidable. However, much of the information will be easy to specify (gender, ethnicity), so part of the activity will proceed very quickly. Certain information requests will require your group to search records carefully (for example, number of schools attended, reading level, number of absences last year).

The teachers and others who know the student well should check the records and provide information. The PDK research team should process the discussion, ask helpful questions, and *record the information provided on the answer blank, according to the instructions*. Fill out one answer blank for each student. Note: *If the information is not available* — in the student's folder, in the school's records, or in the teacher's experience — *leave that space unmarked on the answer blank*.

Fill out one information about students answer blank for each student. *Use a No. 2 lead pencil*, and be certain that you have the student's assigned ID number recorded properly in the appropriate space in the lower left hand corner of the answer blank. Record all of the information on the answer blank according to the exact specifications set forth. *Keep the instructions before you while you record* information. Items 25 through 58 are all No or Yes items that are recorded as 0 or 1, and those will be easy to remember, but instructions pertaining to the other items must be reviewed constantly.

Practice this data-recording procedure beforehand to familiarize yourself with the concepts and to avoid making errors when you actually record the information about each student. Every item on the answer blank has been identified by a word or phrase to help you, but recording the data in this job is the heart of this study, so do it very carefully. We cannot do an excellent study with poor data.

Remember, *if you have no information, leave that space unmarked*.

Task 6: Ask Principal to Keep the Student ID Number Sheets. After you have finished filling out one information about students answer blank for each student studied, have school personnel give the student ID number sheets to the principal. Ask that person to keep those sheets in his or her files, and request that it be made part of the school record.

By asking the principal to keep the student ID number sheets in the school, you demonstrate clearly and convincingly that you are *not* taking information out of the school that would enable anyone to learn anything about a particular student. Students cannot be identified without access to the student ID number sheets maintained in the school. Anonymity will be assured.

Tell the principal you will return to the school after the data have been analyzed, and you will share with him or her whatever you learn about the students and about the school from the data collected.

Thank the principal and teachers for all they have done.

Instructions for Recording Information About Students

Directions for recording information about each student on the information about students answer blank are spelled out in detail in the following pages. *Follow these directions exactly*. Each item is listed separately, and instructions about what to record on each numbered space of the answer blank are described.

Fill in the appropriate circle on the answer blank with a No. 2 lead pencil, according to the directions listed below. *If the teachers who work with a student most closely do not know about a particular item, or if there is no information available, leave all of the circles for that item blank*.

Be sure to *put your chapter number on the answer blank* in the appropriate space so we will know exactly where the data come from. We will not be able to provide print-outs to your chapter unless you put the chapter number on each student's answer blank.

Note again: If the information is not available and if none of the teachers or others know exactly what the facts are in a given instance, *leave that item unmarked (blank)*.

Use a No. 2 pencil, please.

One final note: Under Directions on the answer blank it says, "After you record all data on the matrix data sheet, transfer to this answer blank." Please ignore that sentence. The data recording procedures were modified after the answer blank was printed, and that sentence does not apply.

Item Number

Factor

What to record

Birth date

Record the month and the last two digits of the year in which student was born

Chapter ID

Record the four-digit number of the Phi Delta Kappa chapter doing the study.
For example, chapter number 0129 would be recorded as 0129

Student ID number

Record student's ID number as assigned on student ID number sheet

Ethnic group

- 1 = White
- 2 = Black
- 3 = Hispanic
- 4 = Native American
- 5 = Asian

Sex

- Male = Male
- Female = Female

Grade or education

- 4 = Fourth grade
- 7 = Seventh grade
- 10 = 10th grade

1.

Father's occupation

- 1 = Professional
- 2 = Manager, technician
- 3 = Skilled laborer
- 4 = Unskilled laborer
- 5 = Househusband
- 6 = Unemployed

2. *Father's level of education*
1 = Did not graduate from high school
2 = Graduated from high school only
3 = Finished 1-3 years post-secondary
4 = Graduated from college
5 = Did post-graduate work
3. *Mother's occupation*
1 = Professional
2 = Manager, technician
3 = Skilled laborer
4 = Unskilled laborer
5 = Housewife
6 = Unemployed
4. *Mother's level of education*
1 = Did not graduate from high school
2 = Graduated from high school only
3 = Finished 1-3 years post-secondary
4 = Graduated from college
5 = Did post-graduate work
5. *Number of siblings*
0 = None
1 = One
2 = Two
3 = Three
4 = Four or more
6. *Position in family*
1 = Only child
2 = Eldest
3 = Middle
4 = Youngest
7. *Siblings who dropped out of school*
0 = None
1 = One
2 = Two
3 = Three
4 = Four or more
8. *Family Grouping*
1 = Real mother, real father
2 = Real mother, stepfather
3 = Stepmother, real father
4 = Real mother only
5 = Real father only
6 = Extended family
7 = Foster parents
8 = Institution

9. *Language used most in the home*
1 = English
2 = Spanish
3 = Asian
4 = European
5 = Other
10. *Estimate of parents' attitude toward education*
1 = Very negative
2 = Negative
3 = So-so/in-between
4 = Positive
5 = Very positive
11. *Area or community in which the student resides*
1 = Rural
2 = Small town
3 = Small city
4 = Suburban
5 = Metro urban
6 = Inner-city urban
12. *Number of schools attended by the student during past five years (including this year)*
1 = One
2 = Two
3 = Three
4 = Four
5 = Five or more
13. *Student's scores on norm-referenced standardized achievement tests in reading*
1 = Below 20th percentile
2 = Between 21st and 40th percentile
3 = Between 41st and 60th percentile
4 = Between 61st and 80th percentile
5 = Over 80th percentile
14. *Student's score on norm-referenced intelligence or aptitude test*
1 = Below 80
2 = 81 to 90
3 = 91 to 110
4 = 111 to 120
5 = Above 120
15. *Number of courses failed last school year (1987-88)*
0 = None
1 = One
2 = Two
3 = Three
4 = Four

16. Age relative to other students in same grade level
1 = Two years younger than others
2 = One year younger than others
3 = Same age as others
4 = One year older than others
5 = Two years older than others
17. Number of times this student has been *retained in grade* (held back)
0 = Never
1 = One
2 = Two
3 = Three or more
18. Number of days student was *absent* during the 1987-88 school year
1 = 10 or less
2 = 11 to 20
3 = 21 to 30
4 = 31 to 40
5 = 41 or more
19. Number of times student was *suspended* during 1987-88 school year (in-school or out-of-school suspension)
0 = None
1 = One
2 = Two
3 = Three
4 = Four or more
20. Number of times student was *expelled* during 1987-88 school year
0 = None
1 = One
2 = Two
21. Number of *extracurricular activities* (school sponsored) in which student currently participates
0 = None
1 = One
2 = Two
3 = Three
4 = Four or more
22. Teacher's estimate of the student's sense of *self-esteem*
1 = Very negative
2 = Negative
3 = So-so/in-between
4 = Positive
5 = Very positive

23. Average *grades* student received last year
0 = F
1 = D
2 = C
3 = B
4 = A
24. Has the student been diagnosed as being in a *special education category*?
0 = No
1 = Learning disabled
2 = Mentally retarded
3 = Physically handicapped
4 = Deaf
5 = Blind
6 = Other
25. Has the student changed his or her place of *residence* during the past year?
0 = No
1 = Yes
26. Has the student *changed the school* that he or she attends during the past year?
0 = No
1 = Yes
27. Have either of the student's *parents had a major change in health* status during the past year?
0 = No
1 = Yes
28. Has the student had either a *father or mother die* during the past year?
0 = No
1 = Yes
29. Did a *parent attempt suicide* during the past year?
0 = No
1 = Yes
30. Did a *parent lose his or her job* during the past year?
0 = No
1 = Yes
31. Did the student's *parents go through a divorce or separation* during the past year?
0 = No
1 = Yes
32. Did the student have a *close friend who died* during the past year?
0 = No
1 = Yes

33. Did the student experience a *serious illness or accident* during the past year?
0 = No
1 = Yes
34. Did a *brother or sister die* during the past year?
0 = No
1 = Yes
35. Was the student *dropped from an athletic team* during the past year?
0 = No
1 = Yes
36. Did the student *attempt suicide* during the past year?
0 = No
1 = Yes
37. Did a *pregnancy* occur during the past year?
0 = No
1 = Yes
38. Is there evidence that the student *has been using drugs* or engaged in substance abuse of any kind during the past year?
0 = No
1 = Yes
39. Is there evidence that the student *has been selling or pushing drugs* of any kind during the past year?
0 = No
1 = Yes
40. Is there evidence that *anybody in the family has been using drugs* or engaged in substance abuse of any kind during the past year?
0 = No
1 = Yes
41. Is there evidence that the student has been *drinking alcohol* during the past year?
0 = No
1 = Yes
42. Is there evidence that *either parent drank excessively* or was an alcoholic during the past year?
0 = No
1 = Yes
43. Is there evidence that the student was arrested for *driving while intoxicated* during the past year?
0 = No
1 = Yes

44. Is there evidence that the student was *arrested or convicted* for any illegal activity during the past year?
0 = No
1 = Yes
45. Is there evidence that the student was *abused*, sexually or physically, during the past year?
0 = No
1 = Yes
46. Was this student placed in a *class that was smaller* than typical for instructional purposes?
0 = No
1 = Yes
47. Has this student been provided *computerized instruction* opportunities?
0 = No
1 = Yes
48. Has this student been *referred to special education* for diagnosis or instruction?
0 = No
1 = Yes
49. Has this student been placed in a *low group* or lower track courses?
0 = No
1 = Yes
50. Has the school provided *individualized instruction* to this student?
0 = No
1 = Yes
51. Has the school provided *flexible scheduling* for this student?
0 = No
1 = Yes
52. Has the school provided *tutoring* or other special assistance to this student?
0 = No
1 = Yes
53. Has the school provided *extra homework* for this student?
0 = No
1 = Yes
54. Has the school provided *extra opportunities for parental involvement* for this student?
0 = No
1 = Yes

55. Has the school provided *extra instruction in the basic skills* for this student?
0 = No
1 = Yes
56. Has the school *referred this child to the psychologist* or for other special services?
0 = No
1 = Yes
57. Has the school provided *special instructional materials* to this student?
0 = No
1 = Yes
58. Has the school provided *special teachers* for this student?
0 = No
1 = Yes

Student ID Number Sheet

Last name, first name

ID number

This image shows a single page of white paper with horizontal ruling lines. The lines are evenly spaced and run across the width of the page. There is no handwriting or other markings on the paper.

APPENDIX C
REVISED RISK SCALE

DIRECTIONS: Circle YES or NO for each question.

- | | | |
|-----|----|---|
| YES | NO | Does the student's father or mother work as an unskilled laborer, or is that person unemployed? (Note: If the mother is a housewife, do not consider her unemployed.) |
| YES | NO | Did the student's father or mother <i>not</i> graduate from high school? |
| YES | NO | Does the student <i>not</i> live with his or her real mother <i>and</i> real father, or did the parents get a divorce during the past year? |
| YES | NO | Is English <i>not</i> the language used most in the home? |
| YES | NO | Is the parents' attitude toward education basically negative rather than positive? |
| YES | NO | Did the student change his or her place of residence during the past year, or did the student change the school that he or she attended during the past year? |
| YES | NO | Have either of the student's parents had a major change of health status or died during the past year? |
| YES | NO | Did a parent lose his or her job during the past year? |
| YES | NO | Did a brother, sister, or close friend die during the past year? |
| YES | NO | Did the student experience a serious illness or accident during the past year? |
| YES | NO | Did the student attempt suicide during the past year? |
| YES | NO | Was the student involved in a pregnancy during the past year? |
| YES | NO | Is there evidence that the student has been using drugs or selling drugs during the past year? |
| YES | NO | Is there evidence that anybody in the family used drugs, drank excessively, or was an alcoholic during the past year? |
| YES | NO | Is there evidence that the student has been drinking alcohol during the past year? |
| YES | NO | Is there evidence that the student was arrested or convicted for any illegal activity during the past year? |
| YES | NO | Was the student suspended from school one or more times last year? |
| YES | NO | Is there evidence that the student was abused, sexually or physically, during the past year? |
| YES | NO | Are the student's scores on norm-referenced standardized achievement tests in reading below the 20th percentile? |

- | | | |
|-----|----|---|
| YES | NO | Did the student fail one or more courses last year, or were the student's average grades D or lower? |
| YES | NO | Has the student ever been retained in grade (held back), or is the student one or more years older than other students in the same grade? |
| YES | NO | Was the student absent from school more than 20 days during the last school year? |
| YES | NO | Does the student have a negative sense of self-esteem? |
| YES | NO | Has the student been diagnosed as being eligible for a special education category? |

APPENDIX D
ANALYSIS BY ITEM

Table 10

Comparison of students who were suspended with students who
were not suspended on various risk items

(N = 1,290 and 20,416)

Item	At Risk	Not At Risk	Chi Square	Level of Significance
Suspended from school	100	0		
Attempted suicide	4.0	.6	176.83	.001
Involved in pregnancy	3.4	.4	194.69	.001
Student sold drugs	5.4	.3	580.64	.001
Student used drugs	19.9	1.8	1403.93	.001
Family used drugs	14.1	2.8	467.61	.001
Student used alcohol	25.0	3.3	1289.29	.001
Parent alcoholic	13.9	3.0	415.03	.001
Student arrested	10.2	.7	846.49	.001
Student abused	7.4	1.5	225.53	.001
Low grades in school	44.3	11.4	1127.55	.001
Failed courses	35.4	7.3	1178.55	.001
Overage in grade	35.7	15.0	385.42	.001
Retained in grade	36.0	12.9	534.49	.001
Excessive absences	27.4	5.6	901.59	.001
Low self-esteem	31.2	11.2	450.19	.001
Referred special education	18.2	9.3	109.79	.001
Low reading scores	17.4	8.9	102.70	.001
Parent sick last year	9.0	3.7	86.49	.001
Parent died last year	1.8	.9	11.50	.001
Parent lost job last year	9.2	3.7	97.29	.001
Friend died last year	14.3	4.0	292.12	.001
Student ill last year	8.8	2.9	139.68	.001
Sibling died last year	.9	.5	2.42	
Father low-level job	23.3	16.5	40.7	.001
Father not high school graduate	18.1	7.1	207.73	.001
Mother low-level job	27.6	19.1	55.24	.001
Mother not high school graduate	19.9	7.6	241.09	.001
Parents' attitude negative	14.0	4.4	233.85	.001
Language not English	7.4	4.8	18.73	.001
Broken home	55.6	33.2	267.52	.001
Moved frequently	20.8	15.5	25.39	.001
Changed schools frequently	22.6	23.4	.47	
Parents divorced last year	10.2	6.6	23.71	.001

Table 11

Comparison of students who attempted suicide with students
who did not attempt suicide on various risk items

(N = 176 and 21,530)

Item	At Risk	Not At Risk	Chi Square	Level of Significance
Suspended from school	29.5	5.8	176.83	.001
Attempted suicide	100	0		
Involved in pregnancy	6.3	.5	100.74	.001
Student sold drugs	5.1	.5	65.77	.001
Student used drugs	40.9	2.6	906.26	.001
Family used drugs	22.7	3.3	197.91	.001
Student used alcohol	46.0	4.3	690.91	.001
Parent alcoholic	23.9	3.4	209.03	.001
Student arrested	14.2	1.2	232.42	.001
Student abused	26.7	1.7	596.21	.001
Low grades in school	23.9	13.3	16.79	.001
Failed courses	26.1	8.8	64.23	.001
Overage in grade	21.6	16.2	3.79	
Retained in grade	23.9	14.2	13.31	.001
Excessive absences	26.1	6.7	102.29	.001
Low self-esteem	38.6	12.2	112.86	.001
Referred special education	15.3	9.8	6.15	.01
Low reading scores	8.0	9.4	.42	
Parent sick last year	24.4	3.9	190.01	.001
Parent died last year	4.0	.9	18.42	.001
Parent lost job last year	18.8	3.9	100.40	.001
Friend died last year	26.7	4.4	197.69	.001
Student ill last year	27.3	3.0	330.54	.001
Sibling died last year	2.8	.5	1.31	
Father low-level job	13.6	16.9	1.31	
Father not high school graduate	11.4	7.7	3.26	
Mother low-level job	15.9	19.7	1.55	
Mother not high school graduate	18.2	8.3	22.52	.001
Parents' attitude negative	8.5	5.0	4.58	.03
Language not English	7.4	4.9	2.32	
Broken home	57.4	34.4	40.81	.001
Moved frequently	27.3	15.7	17.51	.001
Changed schools frequently	30.1	23.3	4.53	.03
Parents divorced last year	18.8	6.4	39.53	.001

Table 12

Comparison of students who were involved in pregnancy with students
not involved in pregnancy on various risk items

(N = 124 and 21,582)

Item	At Risk	Not At Risk	Chi Square	Level of Significance
Suspended from school	35.5	5.8	194.69	.001
Attempted suicide	8.9	.8	100.74	.001
Involved in pregnancy	100	0		
Student sold drugs	6.5	.5	77.40	.001
Student used drugs	18.5	2.8	107.87	.001
Family used drugs	14.5	3.4	45.83	.001
Student used alcohol	32.3	4.5	216.41	.001
Parent alcoholic	15.3	3.5	49.13	.001
Student arrested	13.7	1.2	151.08	.001
Student abused	13.7	1.8	95.24	.001
Low grades in school	32.3	13.3	38.30	.001
Failed courses	33.9	8.8	94.94	.001
Overage in grade	33.1	16.1	26.11	.001
Retained in grade	36.3	14.2	49.34	.001
Excessive absences	33.9	6.7	141.32	.001
Low self-esteem	37.1	12.2	70.30	.001
Referred special education	13.7	9.8	2.15	
Low reading scores	16.1	9.3	6.67	.01
Parent sick last year	15.3	4.0	40.87	.001
Parent died last year	0	.9	1.15	
Parent lost job last year	14.5	3.9	35.86	.001
Friend died last year	24.2	4.5	109.18	.001
Student ill last year	17.7	3.1	64.73	.001
Sibling died last year	3.2	.5	16.59	.001
Father low-level job	16.9	16.9	.00	
Father not high school graduate	21.8	7.7	34.40	.001
Mother low-level job	30.6	19.6	9.60	.002
Mother not high school graduate	25.0	8.2	45.34	.001
Parents' attitude negative	13.7	5.0	19.78	.001
Language not English	8.1	4.9	2.65	
Broken home	59.7	34.4	34.74	.001
Moved frequently	32.3	15.7	25.34	.001
Changed schools frequently	29.0	23.3	2.25	
Parents divorced last year	19.4	6.8	30.68	.001

Table 13

Comparison of students who sold drugs with students
who did not sell drugs on various risk items

(N = 122 and 21,584)

Item	At Risk	Not At Risk	Chi Square	Level of Significance
Suspended from school	57.4	5.7	580.64	.001
Attempted suicide	7.4	.8	65.77	.001
Involved in pregnancy	6.6	.5	77.40	.001
Student sold drugs	100	0		
Student used drugs	82.0	2.5	2712.49	.001
Family used drugs	48.4	3.2	742.75	.001
Student used alcohol	78.7	4.2	1528.82	.001
Parent alcoholic	31.0	3.5	267.20	.001
Student arrested	38.5	1.1	1335.86	.001
Student abused	13.1	1.8	84.51	.001
Low grades in school	57.4	13.1	204.74	.001
Failed courses	50.8	8.7	263.70	.001
Overage in grade	36.9	16.1	38.65	.001
Retained in grade	42.6	14.1	80.50	.001
Excessive absences	45.1	6.7	278.61	.001
Low self-esteem	49.2	12.2	153.28	.001
Referred special education	19.7	9.7	13.51	.001
Low reading scores	20.5	9.3	17.80	.001
Parent sick last year	12.3	4.0	21.51	.001
Parent died last year	4.9	.9	21.78	.001
Parent lost job last year	12.3	4.0	21.95	.001
Friend died last year	26.2	4.5	130.88	.001
Student ill last year	19.7	3.1	106.97	.001
Sibling died last year	6.6	.5	82.07	.001
Father low-level job	22.1	16.8	2.43	
Father not high school graduate	16.4	7.7	12.87	.001
Mother low-level job	27.9	19.6	5.28	.02
Mother not high school graduate	23.8	8.2	38.27	.001
Parents' attitude negative	19.7	4.9	55.30	.001
Language not English	10.7	4.9	8.65	.003
Broken home	51.6	34.5	15.79	.001
Moved frequently	36.1	15.7	37.81	.001
Changed schools frequently	33.6	23.3	7.21	.01
Parents divorced last year	13.1	6.8	7.59	.01

Table 14

Comparison of students who used drugs with students who
did not use drugs on various risk items

(N = 632 and 21,074)

Item	At Risk	Not At Risk	Chi Square	Level of Significance
Suspended from school	40.7	4.9	1403.93	.001
Attempted suicide	11.4	.5	906.26	.001
Involved in pregnancy	3.6	.5	107.87	.001
Student sold drugs	15.8	.1	2712.49	.001
Student used drugs	100	0		
Family used drugs	36.2	2.5	2099.95	.001
Student used alcohol	75.2	2.5	7356.70	.001
Parent alcoholic	29.6	2.8	1261.71	.001
Student arrested	20.4	.7	1869.18	.001
Student abused	14.6	1.5	570.81	.001
Low grades in school	44.0	12.5	525.63	.001
Failed courses	36.7	8.1	614.89	.001
Overage in grade	32.8	15.7	131.32	.001
Retained in grade	32.9	13.7	184.54	.001
Excessive absences	28.8	6.2	486.25	.001
Low self-esteem	41.9	11.5	524.42	.001
Referred special education	17.6	9.6	44.32	.001
Low reading scores	14.6	9.2	20.48	.001
Parent sick last year	10.8	3.8	75.61	.001
Parent died last year	1.7	.9	4.94	
Parent lost job last year	9.8	3.8	57.11	.001
Friend died last year	18.4	4.2	280.84	.001
Student ill last year	12.3	2.9	174.61	.001
Sibling died last year	2.1	.5	27.57	.001
Father low-level job	21.0	16.7	8.14	.01
Father not high school graduate	16.8	7.5	74.37	.001
Mother low-level job	24.4	19.5	9.28	.01
Mother not high school graduate	18.8	8.0	93.85	.001
Parents' attitude negative	19.3	4.6	278.82	.001
Language not English	7.4	4.8	8.85	.01
Broken home	51.1	34.1	78.65	.001
Moved frequently	26.9	15.5	60.11	.001
Changed schools frequently	28.3	23.2	9.00	.01
Parents divorced last year	13.9	6.6	51.33	.001

Table 15

Comparison of students whose family members used drugs with students
whose family members did not use drugs on various risk items

(N = 749 and 20,957)

Item	At Risk	Not At Risk	Chi Square	Level of Significance
Suspended from school	24.3	5.3	467.61	.001
Attempted suicide	5.3	.6	197.91	.001
Involved in pregnancy	2.4	.5	45.84	.001
Student sold drugs	7.9	.3	742.75	.001
Student used drugs	30.6	1.9	2099.95	.001
Family used drugs	100	0		
Student used alcohol	37.0	3.5	1845.69	.001
Parent alcoholic	42.2	2.2	3316.23	.001
Student arrested	11.1	.9	584.10	.001
Student abused	16.7	1.3	928.10	.001
Low grades in school	29.2	12.8	168.09	.001
Failed courses	21.8	8.5	156.03	.001
Overage in grade	29.2	15.7	97.10	.001
Retained in grade	31.0	13.7	176.58	.001
Excessive absences	19.2	6.5	183.64	.001
Low self-esteem	29.6	11.8	213.26	.001
Referred special education	14.6	9.6	19.79	.001
Low reading scores	14.4	9.2	23.12	.001
Parent sick last year	17.8	3.6	375.80	.001
Parent died last year	2.5	.9	22.65	.001
Parent lost job last year	15.6	3.6	272.43	.001
Friend died last year	17.5	4.1	293.95	.001
Student ill last year	13.8	2.8	277.32	.001
Sibling died last year	4.5	.4	229.08	.001
Father low-level job	27.2	16.5	59.63	.001
Father not high school graduate	21.5	7.2	205.56	.001
Mother low-level job	31.4	19.2	67.89	.001
Mother not high school graduate	23.6	7.8	237.63	.001
Parents' attitude negative	16.7	4.6	221.78	.001
Language not English	6.4	4.9	3.70	
Broken home	60.6	33.6	232.52	.001
Moved frequently	27.4	15.4	77.86	.001
Changed schools frequently	25.1	23.3	1.33	
Parents divorced last year	18.8	6.4	175.04	.001

Table 16

Comparison of students who used alcohol with students who
did not use alcohol on various risk items

(N = 1,002 and 20,704)

Item	At Risk	Not At Risk	Chi Square	Level of Significance
Suspended from school	32.1	4.7	1289.29	.001
Attempted suicide	8.1	.5	690.91	.001
Involved in pregnancy	4.0	.4	216.41	.001
Student sold drugs	9.6	.1	1528.82	.001
Student used drugs	47.4	.8	7356.70	.001
Family used drugs	27.6	2.3	1845.70	.001
Student used alcohol	100	0		
Parent alcoholic	25.0	2.6	1386.76	.001
Student arrested	15.1	.6	1566.55	.001
Student abused	9.8	1.5	358.10	.001
Low grades in school	31.9	12.5	311.67	.001
Failed courses	27.0	8.1	421.60	.001
Overage in grade	26.5	15.7	82.78	.001
Retained in grade	27.3	13.6	144.44	.001
Excessive absences	18.4	6.3	215.11	.001
Low self-esteem	31.4	11.5	352.05	.001
Referred special education	13.1	9.6	12.70	.001
Low reading scores	9.7	9.4	.11	
Parent sick last year	9.7	3.8	85.96	.001
Parent died last year	1.2	.9	.94	
Parent lost job last year	9.7	3.7	88.10	.001
Friend died last year	19.8	3.9	550.60	.001
Student ill last year	11.4	2.8	225.40	.001
Sibling died last year	1.6	.5	21.55	.001
Father low-level job	17.4	16.8	.19	
Father not high school graduate	16.9	7.3	122.53	.001
Mother low-level job	20.0	19.6	.07	
Mother not high school graduate	17.5	7.9	114.65	.001
Parents' attitude negative	13.1	4.6	143.10	.001
Language not English	4.2	5.0	1.18	
Broken home	48.2	33.9	86.25	.001
Moved frequently	22.3	15.5	32.77	.001
Changed schools frequently	23.0	23.4	.09	
Parents divorced last year	12.8	6.5	58.15	.001

Table 17

Comparison of students with an alcoholic parent with students
whose parents were not alcoholics on various risk items

(N = 784 and 20,922)

Item	At Risk	Not At Risk	Chi Square	Level of Significance
Suspended from school	22.8	5.3	415.03	.001
Attempted suicide	5.4	.6	209.03	.001
Involved in pregnancy	2.4	.5	49.13	.001
Student sold drugs	4.9	.4	267.20	.001
Student used drugs	23.9	2.1	1261.71	.001
Family used drugs	40.3	2.1	3316.23	.001
Student used alcohol	32.0	3.6	1386.76	.001
Parent alcoholic	100	0		
Student arrested	9.6	1.0	437.55	.001
Student abused	17.2	1.3	1044.01	.001
Low grades in school	27.9	12.8	148.41	.001
Failed courses	19.5	8.6	111.22	.001
Overage in grade	28.2	15.8	86.06	.001
Retained in grade	30.9	13.7	182.77	.001
Excessive absences	16.6	6.5	118.82	.001
Low self-esteem	33.3	11.6	328.18	.001
Referred special education	15.8	9.6	33.25	.001
Low reading scores	15.9	9.1	41.15	.001
Parent sick last year	16.7	3.6	336.10	.001
Parent died last year	2.2	.9	14.20	.001
Parent lost job last year	17.1	3.5	362.55	.001
Friend died last year	16.5	4.2	260.66	.001
Student ill last year	12.8	2.9	238.38	.001
Sibling died last year	3.3	.4	115.65	.001
Father low-level job	29.5	16.4	92.24	.001
Father not high school graduate	19.5	7.3	157.95	.001
Mother low-level job	32.8	19.1	89.23	.001
Mother not high school graduate	22.3	7.8	208.30	.001
Parents' attitude negative	17.1	4.6	249.86	.001
Language not English	6.5	4.9	4.39	.04
Broken home	56.9	33.7	179.00	.001
Moved frequently	28.6	15.3	99.49	.001
Changed schools frequently	27.4	23.2	7.54	.01
Parents divorced last year	21.8	6.3	286.35	.001

Table 18

Comparison of students who were arrested with students who
were not arrested on various risk items

(N = 280 and 21,426)

Item	At Risk	Not At Risk	Chi Square	Level of Significance
Suspended from school	46.8	5.4	846.49	.001
Attempted suicide	8.9	.7	232.42	.001
Involved in pregnancy	6.1	.5	151.08	.001
Student sold drugs	16.8	.4	1335.86	.001
Student used drugs	46.1	2.3	1869.18	.001
Family used drugs	29.6	3.1	584.10	.001
Student used alcohol	53.9	4.0	1566.55	.001
Parent alcoholic	26.8	3.3	437.55	.001
Student arrested	100	0		
Student abused	12.1	1.7	163.08	.001
Low grades in school	51.1	12.9	347.38	.001
Failed courses	43.9	8.5	425.48	.001
Overage in grade	37.5	15.9	94.76	.001
Retained in grade	37.1	14.0	121.10	.001
Excessive absences	34.6	6.5	340.09	.001
Low self-esteem	40.0	12.0	199.65	.001
Referred special education	19.3	9.7	28.84	.001
Low reading scores	18.6	9.3	28.15	.001
Parent sick last year	13.2	3.9	61.45	.001
Parent died last year	2.1	.9	4.75	.03
Parent lost job last year	13.6	3.9	67.57	.001
Friend died last year	22.5	4.4	207.25	.001
Student ill last year	16.1	3.0	150.95	.001
Sibling died last year	1.1	.5	1.46	
Father low-level job	24.3	16.8	11.17	.001
Father not high school graduate	20.7	7.6	66.87	.001
Mother low-level job	27.5	19.5	11.15	.001
Mother not high school graduate	22.1	8.2	70.80	.001
Parents' attitude negative	19.6	4.8	127.33	.001
Language not English	11.1	4.8	23.0	.001
Broken home	55.4	34.3	54.15	.001
Moved frequently	33.2	15.6	64.54	.001
Changed schools frequently	33.9	23.2	17.74	.001
Parents divorced last year	12.1	6.8	12.54	.001

Table 19

Comparison of students who were abused with students who
were not abused on various risk items

(N = 406 and 21,300)

Item	At Risk	Not At Risk	Chi Square	Level of Significance
Suspended from school	23.4	5.6	225.53	.001
Attempted suicide	11.6	.6	596.21	.001
Involved in pregnancy	4.2	.5	95.24	.001
Student sold drugs	3.9	.5	84.51	.001
Student used drugs	22.7	2.5	570.81	.001
Family used drugs	30.8	2.9	928.10	.001
Student used alcohol	24.1	4.2	359.10	.001
Parent alcoholic	33.3	3.0	1044.01	.001
Student arrested	8.4	1.2	163.08	.001
Student abused	100	0		
Low grades in school	30.5	13.1	104.99	.001
Failed courses	21.4	8.7	78.93	.001
Overage in grade	30.0	15.9	58.42	.001
Retained in grade	32.3	13.9	109.31	.001
Excessive absences	17.2	6.7	68.95	.001
Low self-esteem	47.5	11.7	471.77	.001
Referred special education	21.9	9.6	68.70	.001
Low reading scores	21.4	9.2	70.58	.001
Parent sick last year	17.7	3.8	199.75	.001
Parent died last year	1.7	.9	3.02	
Parent lost job last year	15.8	3.8	148.88	.001
Friend died last year	9.6	4.5	23.66	.001
Student ill last year	12.3	3.0	110.34	.001
Sibling died last year	2.5	.5	28.19	.001
Father low-level job	30.5	16.6	55.28	.001
Father not high school graduate	19.0	7.5	73.01	.001
Mother low-level job	35.5	19.3	65.83	.001
Mother not high school graduate	20.7	8.1	82.68	.001
Parents' attitude negative	22.9	4.7	277.86	.001
Language not English	5.9	4.9	.87	
Broken home	64.5	34.0	164.13	.001
Moved frequently	33.5	15.5	97.22	.001
Changed schools frequently	31.0	23.2	13.66	.001
Parents divorced last year	23.4	6.5	178.18	.001

Table 20

Comparison of students with low grades in school with students whose
grades were not low on various risk items

(N = 2,906 and 18,800)

Item	At Risk	Not At Risk	Chi Square	Level of Significance
Suspended from school	19.6	3.8	1127.55	.001
Attempted suicide	1.4	.7	16.79	.001
Involved in pregnancy	1.4	.4	38.29	.001
Student sold drugs	2.4	.3	204.74	.001
Student used drugs	9.6	1.9	525.63	.001
Family used drugs	7.5	2.8	168.09	.001
Student used alcohol	11.0	3.6	311.67	.001
Parent alcoholic	7.5	3.0	148.41	.001
Student arrested	4.9	.7	347.38	.001
Student abused	4.3	1.5	104.99	.001
Low grades in school	100	0		
Failed courses	50.4	2.5	7072.02	.001
Overage in grade	38.9	12.7	1267.50	.001
Retained in grade	38.6	10.5	1617.51	.001
Excessive absences	24.1	4.2	1538.13	.001
Low self-esteem	35.4	8.8	1636.97	.001
Referred special education	20.4	8.2	429.29	.001
Low reading scores	26.2	6.8	1113.94	.001
Parent sick last year	4.9	3.9	6.12	.01
Parent died last year	1.0	.9	.53	
Parent lost job last year	6.0	3.7	35.57	.001
Friend died last year	6.0	4.4	14.05	.001
Student ill last year	4.6	3.0	20.13	.001
Sibling died last year	.5	.5	.04	
Father low-level job	25.6	15.5	183.08	.001
Father not high school graduate	13.7	6.8	166.68	.001
Mother low-level job	27.7	18.4	139.89	.001
Mother not high school graduate	15.8	7.2	244.47	.001
Parents' attitude negative	14.5	3.6	631.46	.001
Language not English	7.2	4.6	36.08	.001
Broken home	47.7	32.5	256.61	.001
Moved frequently	22.3	14.8	104.96	.001
Changed schools frequently	28.4	22.6	46.99	.001
Parents divorced last year	8.2	6.6	9.65	.002

Table 21

Comparison of students who failed courses in school with students who
did not fail courses on various risk items

(N = 1,944 and 19,762)

Item	At Risk	Not At Risk	Chi Square	Level of Significance
Suspended from school	23.5	4.2	1178.55	.001
Attempted suicide	2.4	.7	64.23	.001
Involved in pregnancy	2.2	.4	94.94	.001
Student sold drugs	3.2	.3	263.70	.001
Student used drugs	11.9	2.0	614.89	.001
Family used drugs	8.4	3.0	156.03	.001
Student used alcohol	13.9	3.7	421.60	.001
Parent alcoholic	7.9	3.2	111.22	.001
Student arrested	6.3	.8	425.48	.001
Student abused	4.5	1.6	78.93	.001
Low grades in school	75.4	7.3	7072.02	.001
Failed courses	100	0		
Overage in grade	43.2	13.6	1142.67	.001
Retained in grade	43.6	11.4	1496.15	.001
Excessive absences	29.7	4.7	1726.28	.001
Low self-esteem	36.3	10.0	1128.82	.001
Referred special education	16.4	9.2	105.37	.001
Low reading scores	26.2	7.7	708.56	.001
Parent sick last year	6.1	3.8	22.56	.001
Parent died last year	1.3	.9	3.30	
Parent lost job last year	6.4	3.8	32.71	.001
Friend died last year	7.3	4.3	35.66	.001
Student ill last year	5.3	3.0	31.42	.001
Sibling died last year	.8	.5	2.05	
Father low-level job	22.9	16.3	56.42	.001
Father not high school graduate	15.1	7.0	160.76	.001
Mother low-level job	25.6	19.0	48.59	.001
Mother not high school graduate	18.2	7.4	272.60	.001
Parents' attitude negative	14.3	4.1	386.16	.001
Language not English	9.3	4.5	88.24	.001
Broken home	49.5	33.1	211.29	.001
Moved frequently	23.7	15.0	98.88	.001
Changed schools frequently	25.4	23.2	4.83	.03
Parents divorced last year	9.7	6.6	27.91	.001

Table 22

Comparison of students who were overage in grade with students
who were not overage on various risk items

(N = 3,517 and 18,189)

Item	At Risk	Not At Risk	Chi Square	Level of Significance
Suspended from school	13.1	4.6	385.42	.001
Attempted suicide	1.1	.8	3.79	
Involved in pregnancy	1.2	.5	26.11	.001
Student sold drugs	1.3	.4	38.65	.001
Student used drugs	5.9	2.3	131.32	.001
Family used drugs	6.2	2.9	97.10	.001
Student used alcohol	7.6	4.0	82.78	.001
Parent alcoholic	6.3	3.1	86.06	.001
Student arrested	3.0	1.0	94.76	.001
Student abused	3.5	1.6	58.42	.001
Low grades in school	32.1	9.8	1267.50	.001
Failed courses	23.9	6.1	1142.67	.001
Overage in grade	100	0		
Retained in grade	66.1	4.3	9218.39	.001
Excessive absences	15.9	5.2	525.81	.001
Low self-esteem	22.6	10.4	407.33	.001
Referred special education	21.4	7.6	633.15	.001
Low reading scores	22.1	6.9	793.51	.001
Parent sick last year	5.6	3.7	27.16	.001
Parent died last year	1.4	.8	9.51	.002
Parent lost job last year	6.1	3.6	48.60	.001
Friend died last year	6.6	4.2	38.22	.001
Student ill last year	4.6	2.9	27.37	.001
Sibling died last year	1.2	.4	30.05	.001
Father low-level job	24.8	15.3	189.99	.001
Father not high school graduate	14.4	6.5	259.72	.001
Mother low-level job	27.3	18.1	156.53	.001
Mother not high school graduate	15.9	6.9	316.37	.001
Parents' attitude negative	9.7	4.1	190.46	.001
Language not English	8.0	4.3	88.02	.001
Broken home	47.9	32.0	329.90	.001
Moved frequently	22.2	14.6	128.95	.001
Changed schools frequently	28.0	22.5	50.27	.001
Parents divorced last year	8.2	6.6	11.54	.001

Table 23

Comparison of students who were retained in grade with those who
were not retained on various risk items

(N = 3,100 and 18,606)

Item	At Risk	Not At Risk	Chi Square	Level of Significance
Suspended from school	15.0	4.4	534.49	.001
Attempted suicide	1.4	.7	13.31	.001
Involved in pregnancy	1.5	.4	49.34	.001
Student sold drugs	1.7	.4	80.50	.001
Student used drugs	6.7	2.3	184.55	.001
Family used drugs	7.5	2.8	176.58	.001
Student used alcohol	8.6	3.9	146.44	.001
Parent alcoholic	7.8	2.9	182.77	.001
Student arrested	3.4	.9	121.10	.001
Student abused	4.2	1.5	109.31	.001
Low grades in school	36.2	9.6	1617.51	.001
Failed courses	27.3	5.9	1496.15	.001
Overage in grade	75.0	6.4	9218.39	.001
Retained in grade	100	0		
Excessive absences	16.5	5.3	517.68	.001
Low self-esteem	24.7	10.3	510.15	.001
Referred special education	23.0	7.6	708.74	.001
Low reading scores	24.5	6.9	969.60	.001
Parent sick last year	6.0	3.7	35.61	.001
Parent died last year	1.5	.8	14.59	.001
Parent lost job last year	7.0	3.5	82.68	.001
Friend died last year	7.5	4.1	67.15	.001
Student ill last year	5.5	2.8	60.11	.001
Sibling died last year	1.4	.4	47.59	.001
Father low-level job	26.0	15.3	215.70	.001
Father not high school graduate	16.7	6.2	410.43	.001
Mother low-level job	29.0	18.1	200.08	.001
Mother not high school graduate	17.8	6.8	427.65	.001
Parents' attitude negative	11.5	3.9	317.38	.001
Language not English	6.9	4.6	30.57	.001
Broken home	50.8	31.9	421.17	.001
Moved frequently	22.2	14.7	111.79	.001
Changed schools frequently	27.7	22.6	39.01	.001
Parents divorced last year	9.3	6.4	32.29	.001

Table 24

Comparison of students who had excessive absences with students who
did not have excessive absences on various risk items

(N = 1,497 and 20,209)

Item	At Risk	Not At Risk	Chi Square	Level of Significance
Suspended from school	23.6	4.6	901.59	.001
Attempted suicide	3.1	.6	102.29	.001
Involved in pregnancy	2.8	.4	141.32	.001
Student sold drugs	3.7	.3	278.61	.001
Student used drugs	12.2	2.2	486.25	.001
Family used drugs	9.6	3.0	183.64	.001
Student used alcohol	12.3	4.0	215.11	.001
Parent alcoholic	8.7	3.2	118.82	.001
Student arrested	6.5	.9	340.09	.001
Student abused	4.7	1.7	68.95	.001
Low grades in school	46.7	10.9	1538.13	.001
Failed courses	38.5	6.8	1726.28	.001
Overage in grade	37.3	14.6	525.81	.001
Retained in grade	34.1	12.8	517.68	.001
Excessive absences	100	0		
Low self-esteem	30.9	11.0	510.48	.001
Referred special education	15.4	9.4	56.22	.001
Low reading scores	18.7	8.7	164.22	.001
Parent sick last year	5.9	3.9	13.93	.001
Parent died last year	1.4	.9	4.28	
Parent lost job last year	7.5	3.7	50.61	.001
Friend died last year	6.1	4.5	8.76	.003
Student ill last year	8.4	2.8	140.20	.001
Sibling died last year	1.0	.5	6.24	.01
Father low-level job	24.0	16.3	59.32	.001
Father not high school graduate	14.2	7.3	92.86	.001
Mother low-level job	28.8	18.9	85.62	.001
Mother not high school graduate	17.2	7.7	164.23	.001
Parents' attitude negative	13.9	4.4	265.91	.001
Language not English	7.3	4.7	20.35	.001
Broken home	51.3	33.3	198.87	.001
Moved frequently	21.5	15.4	39.22	.001
Changed schools frequently	25.8	23.2	5.33	.02
Parents divorced last year	12.0	6.5	66.19	.001

Table 25

Comparison of students who had low self-esteem with students whose self-esteem was not low on various risk items

(N = 2,686 and 19,020)

Item	At Risk	Not At Risk	Chi Square	Level of Significance
Suspended from school	15.0	4.7	450.19	.001
Attempted suicide	2.5	.6	112.86	.001
Involved in pregnancy	1.7	.4	70.30	.001
Student sold drugs	2.2	.3	153.28	.001
Student used drugs	9.9	1.9	524.42	.001
Family used drugs	8.3	2.8	213.26	.001
Student used alcohol	11.7	3.6	352.05	.001
Parent alcoholic	9.7	2.7	328.18	.001
Student arrested	4.2	.9	199.65	.001
Student abused	7.2	1.1	471.77	.001
Low grades in school	38.3	9.9	1636.97	.001
Failed courses	26.3	6.5	1128.82	.001
Overage in grade	29.6	14.3	407.33	.001
Retained in grade	28.6	12.3	510.15	.001
Excessive absences	17.2	5.4	510.48	.001
Low self-esteem	100	0		
Referred special education	20.5	8.3	397.63	.001
Low reading scores	21.6	7.7	540.58	.001
Parent sick last year	5.8	3.8	24.54	.001
Parent died last year	1.3	.9	6.22	.01
Parent lost job last year	7.5	3.5	96.58	.001
Friend died last year	6.3	4.4	19.18	.001
Student ill last year	5.5	2.9	50.45	.001
Sibling died last year	.7	.5	2.29	
Father low-level job	22.9	16.0	78.79	.001
Father not high school graduate	13.5	6.9	141.31	.001
Mother low-level job	28.8	18.3	164.13	.001
Mother not high school graduate	15.1	7.4	182.50	.001
Parents' attitude negative	21.7	2.7	1783.43	.001
Language not English	6.2	4.7	10.49	.001
Broken home	48.5	32.6	263.14	.001
Moved frequently	23.3	14.7	130.64	.001
Changed schools frequently	30.4	22.4	84.68	.001
Parents divorced last year	11.5	6.2	106.51	.001

Table 26

Comparison of students who were referred to special education with
students not referred on various risk items

(N = 2,128 and 19,578)

Item	At Risk	Not At Risk	Chi Square	Level of Significance
Suspended from school	11.0	5.4	109.79	.001
Attempted suicide	1.3	.8	6.15	.01
Involved in pregnancy	.8	.5	2.15	
Student sold drugs	1.1	.5	13.51	.001
Student used drugs	5.2	2.7	44.32	.001
Family used drugs	5.1	3.3	19.79	.001
Student used alcohol	6.2	4.4	12.70	.001
Parent alcoholic	5.8	3.4	33.25	.001
Student arrested	2.5	1.2	28.84	.001
Student abused	4.2	1.6	68.70	.001
Low grades in school	27.9	11.8	429.29	.001
Failed courses	15.0	8.3	105.37	.001
Overage in grade	35.3	14.1	633.15	.001
Retained in grade	33.5	12.2	708.74	.001
Excessive absences	10.8	6.5	56.22	.001
Low self-esteem	25.9	10.9	397.63	.001
Referred special education	100	0		
Low reading scores	30.0	7.1	1182.34	.001
Parent sick last year	5.5	3.9	12.84	.001
Parent died last year	1.6	.8	10.64	.001
Parent lost job last year	5.7	3.8	18.36	.001
Friend died last year	5.5	4.5	3.92	
Student ill last year	4.7	3.1	15.77	.001
Sibling died last year	.9	.5	6.85	.01
Father low-level job	21.9	16.3	43.59	.001
Father not high school graduate	10.8	7.4	31.11	.001
Mother low-level job	25.4	19.0	50.26	.001
Mother not high school graduate	11.4	8.0	28.50	.001
Parents' attitude negative	8.8	4.6	72.15	.001
Language not English	5.0	4.9	.06	
Broken home	40.6	33.9	38.46	.001
Moved frequently	17.6	15.6	5.51	
Changed schools frequently	25.2	23.1	4.69	.03
Parents divorced last year	8.5	6.7	9.74	.002

Table 27

Comparison of students who had low reading scores with students
who did not have low scores on various risk items

(N = 2,037 and 19,669)

Item	At Risk	Not At Risk	Chi Square	Level of Significance
Suspended from school	11.0	5.4	102.70	.001
Attempted suicide	.7	.8	.43	
Involved in pregnancy	1.0	.5	6.67	.01
Student sold drugs	1.2	.5	17.80	.001
Student used drugs	4.5	2.7	20.48	.001
Family used drugs	5.3	3.3	23.12	.001
Student used alcohol	4.8	4.6	.11	
Parent alcoholic	6.1	3.4	41.15	.001
Student arrested	2.6	1.2	28.15	.001
Student abused	4.3	1.6	70.58	.001
Low grades in school	37.4	10.9	1113.94	.001
Failed courses	25.0	7.3	708.56	.001
Overage in grade	38.1	13.9	793.51	.001
Retained in grade	37.3	11.9	969.60	.001
Excessive absences	13.7	6.2	164.22	.001
Low self-esteem	28.5	10.4	540.58	.001
Referred special education	31.4	7.6	1182.34	.001
Low reading scores	100	0		
Parent sick last year	4.3	4.0	.29	
Parent died last year	1.6	.8	10.79	.001
Parent lost job last year	6.0	3.8	24.22	.001
Friend died last year	6.5	4.4	18.16	.001
Student ill last year	4.3	3.1	8.90	.003
Sibling died last year	.7	.5	.85	
Father low-level job	27.4	15.8	178.05	.001
Father not high school graduate	13.9	7.1	119.19	.001
Mother low-level job	28.5	18.7	112.79	.001
Mother not high school graduate	14.9	7.7	125.88	.001
Parents' attitude negative	12.1	4.3	235.10	.001
Language not English	8.9	4.5	75.80	.001
Broken home	45.5	33.4	117.71	.001
Moved frequently	19.5	15.4	23.46	.001
Changed schools frequently	25.7	23.1	7.10	.01
Parents divorced last year	8.5	6.7	9.68	.002

Table 28

Comparison of students whose parents were sick in last year with students whose parents were not sick in last year on various risk items

(N = 878 and 20,828)

Item	At Risk	Not At Risk	Chi Square	Level of Significance
Suspended from school	13.2	5.6	86.49	.001
Attempted suicide	4.9	.6	190.01	.001
Involved in pregnancy	2.2	.5	40.87	.001
Student sold drugs	1.7	.5	21.52	.001
Student used drugs	7.7	2.7	75.61	.001
Family used drugs	15.1	3.0	375.80	.001
Student used alcohol	11.0	4.3	85.96	.001
Parent alcoholic	14.9	3.1	336.10	.001
Student arrested	4.2	1.2	61.45	.001
Student abused	8.2	1.6	199.75	.001
Low grades in school	16.2	13.3	6.12	.01
Failed courses	13.4	8.8	22.56	.001
Overage in grade	22.6	15.9	27.16	.001
Retained in grade	21.2	14.0	35.61	.001
Excessive absences	10.0	6.8	13.92	.001
Low self-esteem	17.8	12.1	24.54	.001
Referred special education	13.3	9.7	12.84	.001
Low reading scores	9.9	9.4	.30	
Parent sick last year	100	0		
Parent died last year	7.6	.6	456.99	.001
Parent lost job last year	17.4	3.4	428.94	.001
Friend died last year	20.8	3.9	550.50	.001
Student ill last year	15.8	2.7	468.51	.001
Sibling died last year	3.2	.4	118.44	.001
Father low-level job	22.1	16.6	17.92	.001
Father not high school graduate	15.3	7.4	72.51	.001
Mother low-level job	22.2	19.5	3.87	
Mother not high school graduate	15.9	8.0	69.39	.001
Parents' attitude negative	6.9	4.9	7.16	.01
Language not English	6.2	4.9	2.98	
Broken home	47.5	34.0	67.51	.001
Moved frequently	29.2	15.2	122.43	.001
Changed schools frequently	28.5	23.1	13.43	.001
Parents divorced last year	15.6	6.5	110.41	.001

Table 29

Comparison of students whose parent died last year with those
whose parent did not die on various risk items

(N = 198 and 21,508)

Item	At Risk	Not At Risk	Chi Square	Level of Significance
Suspended from school	11.6	5.9	11.50	.001
Attempted suicide	3.5	.8	18.44	.001
Involved in pregnancy	0	.6	1.15	
Student sold drugs	3.0	.5	21.78	.001
Student used drugs	5.6	2.9	4.94	
Family used drugs	9.6	3.4	22.65	.001
Student used alcohol	6.1	4.6	.95	
Parent alcoholic	8.6	3.6	14.20	.001
Student arrested	3.0	1.3	4.75	
Student abused	3.5	1.9	3.02	
Low grades in school	15.2	13.4	.54	
Failed courses	12.6	8.9	3.30	
Overage in grade	24.2	16.1	9.51	.002
Retained in grade	23.7	14.2	14.60	.001
Excessive absences	10.6	6.9	4.28	
Low self-esteem	18.2	12.3	6.22	.01
Referred special education	16.7	9.7	10.64	.001
Low reading scores	16.2	9.3	10.79	.001
Parent sick last year	33.8	3.8	456.99	.001
Parent died last year	100	0		
Parent lost job last year	11.1	3.9	26.27	.001
Friend died last year	11.1	4.5	19.33	.001
Student ill last year	9.6	3.2	26.21	.001
Sibling died last year	5.6	.5	92.84	.001
Father low-level job	14.6	16.9	.70	
Father not high school graduate	8.1	7.7	.03	
Mother low-level job	23.2	19.6	1.65	
Mother not high school graduate	13.6	8.3	7.35	.01
Parents' attitude negative	8.6	5.0	5.34	
Language not English	6.6	4.9	1.16	
Broken home	80.8	34.2	188.81	.001
Moved frequently	29.8	15.7	29.37	.001
Changed schools frequently	31.8	23.3	8.01	.01
Parents divorced last year	9.1	6.8	1.59	

Table 30

Comparison of students whose parent lost job last year with students
whose parent did not lose job on various risk items

(N = 869 and 20,837)

Item	At Risk	Not At Risk	Chi Square	Level of Significance
Suspended from school	13.7	5.6	97.29	.001
Attempted suicide	3.8	.7	100.40	.001
Involved in pregnancy	2.1	.5	35.86	.001
Student sold drugs	1.7	.5	21.95	.001
Student used drugs	7.1	2.7	57.11	.001
Family used drugs	13.5	3.0	272.43	.001
Student used alcohol	11.2	4.3	88.10	.001
Parent alcoholic	15.4	3.1	362.55	.001
Student arrested	4.4	1.2	67.57	.001
Student abused	7.4	1.6	148.89	.001
Low grades in school	20.1	13.1	35.57	.001
Failed courses	14.4	8.7	32.71	.001
Overage in grade	24.7	15.8	48.60	.001
Retained in grade	24.9	13.8	82.68	.001
Excessive absences	12.9	6.6	50.61	.001
Low self-esteem	23.1	11.9	96.58	.001
Referred special education	14.0	9.6	18.36	.001
Low reading scores	14.2	9.2	24.22	.001
Parent sick last year	17.6	3.5	428.94	.001
Parent died last year	2.5	.8	26.27	.001
Parent lost job last year	100	0		
Friend died last year	10.7	4.3	76.90	.001
Student ill last year	10.9	2.9	173.63	.001
Sibling died last year	1.6	.5	19.08	.001
Father low-level job	35.9	16.2	234.30	.001
Father not high school graduate	23.1	7.1	300.27	.001
Mother low-level job	35.3	19.0	141.49	.001
Mother not high school graduate	23.6	7.7	275.80	.001
Parents' attitude negative	10.9	4.8	66.46	.001
Language not English	9.0	4.7	31.93	.001
Broken home	47.6	34.0	68.31	.001
Moved frequently	34.8	15.0	243.98	.001
Changed schools frequently	30.4	23.1	25.01	.001
Parents divorced last year	20.8	6.3	278.23	.001

Table 31

Comparison of students who had a friend die last year with students
who did not on various risk items

(N = 998 and 20,708)

Item	At Risk	Not At Risk	Chi Square	Level of Significance
Suspended from school	18.4	5.3	292.12	.001
Attempted suicide	4.7	.6	197.69	.001
Involved in pregnancy	3.0	.5	109.18	.001
Student sold drugs	3.2	.4	130.88	.001
Student used drugs	11.6	2.5	280.84	.001
Family used drugs	13.1	3.0	293.95	.001
Student used alcohol	19.8	3.9	550.60	.001
Parent alcoholic	12.9	3.2	260.66	.001
Student arrested	6.3	1.0	207.25	.001
Student abused	3.9	1.8	23.66	.001
Low grades in school	17.3	13.2	14.05	.001
Failed courses	14.2	8.7	35.66	.001
Overage in grade	23.2	15.9	38.23	.001
Retained in grade	23.1	13.9	67.14	.001
Excessive absences	9.2	6.8	8.78	.003
Low self-esteem	16.8	12.2	19.18	.001
Referred special education	11.6	9.7	3.92	
Low reading scores	13.2	9.2	18.16	.001
Parent sick last year	18.3	3.4	550.50	.001
Parent died last year	2.2	.8	19.33	.001
Parent lost job last year	9.3	3.7	76.90	.001
Friend died last year	100	0		
Student ill last year	19.2	2.4	864.61	.001
Sibling died last year	4.8	.3	352.11	.001
Father low-level job	16.0	16.9	.51	
Father not high school graduate	14.5	7.4	67.53	.001
Mother low-level job	23.3	19.4	9.18	.002
Mother not high school graduate	16.8	7.9	98.92	.001
Parents' attitude negative	5.2	5.0	.08	
Language not English	5.6	4.9	1.08	
Broken home	45.2	34.1	52.10	.001
Moved frequently	24.3	15.4	57.28	.001
Changed schools frequently	19.0	23.6	10.86	.001
Parents divorced last year	10.7	6.6	24.78	.001

Table 32

Comparison of students who were seriously ill last year with those who
were not seriously ill on various risk items

(N = 697 and 21,009)

Item	At Risk	Not At Risk	Chi Square	Level of Significance
Suspended from school	16.4	5.6	139.68	.001
Attempted suicide	6.9	.6	330.54	.001
Involved in pregnancy	3.2	.5	84.73	.001
Student sold drugs	3.4	.5	106.97	.001
Student used drugs	11.2	2.6	174.61	.001
Family used drugs	14.8	3.1	277.32	.001
Student used alcohol	16.4	4.2	225.40	.001
Parent alcoholic	14.3	3.3	238.38	.001
Student arrested	6.5	1.1	150.95	.001
Student abused	7.2	1.7	110.34	.001
Low grades in school	19.1	13.2	20.13	.001
Failed courses	14.9	8.8	31.42	.001
Overage in grade	23.4	16.0	27.37	.001
Retained in grade	24.4	13.9	60.11	.001
Excessive absences	18.1	6.5	140.20	.001
Low self-esteem	21.1	12.1	50.45	.001
Referred special education	14.2	9.7	15.77	.001
Low reading scores	12.6	9.3	8.90	.002
Parent sick last year	19.9	3.5	468.91	.001
Parent died last year	2.7	.9	26.21	.001
Parent lost job last year	13.6	3.7	173.63	.001
Friend died last year	27.5	3.8	864.61	.001
Student ill last year	100	0		
Sibling died last year	6.3	.4	443.30	.001
Father low-level job	19.8	16.8	4.45	
Father not high school graduate	14.9	7.5	52.01	.001
Mother low-level job	13.2	19.5	5.51	
Mother not high school graduate	16.5	8.1	62.85	.001
Parents' attitude negative	8.2	4.9	15.10	.001
Language not English	5.9	4.9	1.44	
Broken home	46.1	34.2	41.95	.001
Moved frequently	24.4	15.5	39.82	.001
Changed schools frequently	25.7	23.3	2.19	
Parents divorced last year	13.2	6.6	45.77	.001

Table 33

Comparison of students who had sibling die in last year with those
who did not on various risk items

(N = 118 and 21,706)

Item	At Risk	Not At Risk	Chi Square	Level of Significance
Suspended from school	9.3	5.9	2.42	
Attempted suicide	4.2	.8	17.32	.001
Involved in pregnancy	3.4	.6	16.59	.001
Student sold drugs	6.8	.5	82.07	.001
Student used drugs	11.0	2.9	27.57	.001
Family used drugs	28.8	3.3	229.08	.001
Student used alcohol	13.6	4.6	21.55	.001
Parent alcoholic	22.0	3.5	115.65	.001
Student arrested	2.5	1.3	1.46	
Student abused	8.5	1.8	28.19	.001
Low grades in school	12.7	13.4	.04	
Failed courses	12.7	8.9	2.05	
Overage in grade	24.7	16.1	30.04	.001
Retained in grade	36.4	14.2	47.59	.001
Excessive absences	12.7	6.9	6.24	.01
Low self-esteem	16.9	12.3	2.29	
Referred special education	16.9	9.8	6.85	.01
Low reading scores	11.9	9.4	.85	
Parent sick last year	23.7	3.9	118.44	.001
Parent died last year	9.3	.9	92.84	.001
Parent lost job last year	11.9	4.0	19.08	.001
Friend died last year	40.4	4.4	352.11	.001
Student ill last year	27.3	3.0	443.30	.001
Sibling died last year	100	0		
Father low-level job	21.2	16.8	1.59	
Father not high school graduate	14.4	7.7	7.39	.01
Mother low-level job	19.5	19.6	.00	
Mother not high school graduate	19.5	8.3	19.33	.001
Parents' attitude negative	10.2	5.0	6.61	.01
Language not English	12.7	4.9	15.43	.001
Broken home	47.5	34.5	8.70	.003
Moved frequently	26.3	15.8	9.75	.002
Changed schools frequently	21.2	23.4	.31	
Parents divorced last year	23.7	6.7	53.15	.001

Table 34

Comparison of students whose father had low-level job with those
whose father did not have low-level job on various risk items

(N = 3,659 and 18,047)

Item	At Risk	Not At Risk	Chi Square	Level of Significance
Suspended from school	8.2	5.5	40.07	.001
Attempted suicide	.7	.8	1.31	
Involved in pregnancy	.6	.6	.00	
Student sold drugs	.7	.5	2.43	
Student used drugs	3.6	2.8	8.14	.004
Family used drugs	5.6	3.0	59.63	.001
Student used alcohol	4.8	4.6	.19	
Parent alcoholic	6.3	3.1	92.24	.001
Student arrested	1.9	1.2	11.17	.001
Student abused	3.4	1.6	55.28	.001
Low grades in school	20.3	12.0	183.08	.001
Failed courses	12.2	8.3	56.42	.001
Overage in grade	23.9	14.7	189.99	.001
Retained in grade	22.0	12.7	215.70	.001
Excessive absences	9.8	6.3	59.32	.001
Low self-esteem	16.8	11.5	78.79	.001
Referred special education	12.8	9.2	43.59	.001
Low reading scores	15.3	8.2	178.05	.001
Parent sick last year	5.3	3.8	17.92	.001
Parent died last year	.8	.9	.69	
Parent lost job last year	8.5	3.1	234.30	.001
Friend died last year	4.4	4.6	.50	
Student ill last year	3.8	3.1	4.45	
Sibling died last year	.7	.5	1.59	
Father low-level job	100	0		
Father not high school graduate	24.0	4.4	1628.59	.001
Mother low-level job	45.0	14.5	1794.15	.001
Mother not high school graduate	20.4	5.9	844.62	.001
Parents' attitude negative	9.1	4.2	154.02	.001
Language not English	9.6	4.0	208.38	.001
Broken home	35.4	34.4	1.48	
Moved frequently	19.8	15.0	52.25	.001
Changed schools frequently	27.5	22.5	43.38	.001
Parents divorced last year	7.8	6.6	6.63	.01

Table 35

Comparison of students whose father did not graduate from high school with
students whose father did graduate on various risk items

(N = 1,680 and 20,026)

Item	At Risk	Not At Risk	Chi Square	Level of Significance
Suspended from school	13.9	5.3	207.73	.001
Attempted suicide	1.2	.8	3.26	
Involved in pregnancy	1.6	.5	34.40	.001
Student sold drugs	1.2	.5	12.87	.001
Student used drugs	6.3	2.6	74.37	.001
Family used drugs	9.6	2.9	205.56	.001
Student used alcohol	10.1	4.2	122.53	.001
Parent alcoholic	9.1	3.2	157.95	.001
Student arrested	3.5	1.1	66.87	.001
Student abused	4.6	1.6	73.01	.001
Low grades in school	23.7	12.5	166.68	.001
Failed courses	17.4	8.2	160.76	.001
Overage in grade	30.1	15.0	259.72	.001
Retained in grade	30.9	12.9	410.43	.001
Excessive absences	12.6	6.4	92.86	.001
Low self-esteem	21.5	11.6	141.31	.001
Referred special education	13.7	9.5	31.11	.001
Low reading scores	16.8	8.8	119.19	.001
Parent sick last year	8.0	3.7	72.51	.001
Parent died last year	1.0	.9	.03	
Parent lost job last year	12.0	3.3	300.27	.001
Friend died last year	8.6	4.3	67.53	.001
Student ill last year	6.2	3.0	52.01	.001
Sibling died last year	1.0	.5	7.39	.01
Father low-level job	52.3	13.9	1628.59	.001
Father not high school graduate	100	0		
Mother low-level job	38.0	18.1	391.24	.001
Mother not high school graduate	58.6	4.1	6015.63	.001
Parents' attitude negative	12.9	4.4	238.46	.001
Language not English	15.4	4.0	429.60	.001
Broken home	36.3	34.4	2.6	
Moved frequently	22.1	15.3	54.84	.001
Changed schools frequently	25.8	23.1	5.99	.01
Parents divorced last year	9.5	6.6	19.74	.001

Table 36

Comparison of students whose mother had low-level job with students
whose mother did not have low-level job on various risk items

(N = 4,260 and 17,446)

Item	At Risk	Not At Risk	Chi Square	Level of Significance
Suspended from school	8.4	5.4	55.24	.001
Attempted suicide	.7	.8	1.55	
Involved in pregnancy	.9	.5	9.60	.002
Student sold drugs	.8	.5	5.28	
Student used drugs	3.6	2.7	9.28	.002
Family used drugs	5.5	2.9	67.89	.001
Student used alcohol	4.7	4.6	.07	
Parent alcoholic	6.0	3.0	89.23	.001
Student arrested	1.8	1.2	11.15	.001
Student abused	3.4	1.5	65.83	.001
Low grades in school	18.9	12.0	139.89	.001
Failed courses	11.7	8.3	48.59	.001
Overage in grade	22.5	14.7	156.53	.001
Retained in grade	21.1	12.6	200.08	.001
Excessive absences	10.1	6.1	85.62	.001
Low self-esteem	18.2	11.0	164.13	.001
Referred special education	12.7	9.1	50.26	.001
Low reading scores	13.6	8.3	112.79	.001
Parent sick last year	4.6	3.9	3.87	
Parent died last year	1.1	.9	1.65	
Parent lost job last year	7.2	3.2	141.49	.001
Friend died last year	5.5	4.4	9.18	.002
Student ill last year	3.8	3.1	5.51	
Sibling died last year	.5	.5	.00	
Father low-level job	38.6	11.5	1794.15	.001
Father not high school graduate	15.0	6.0	391.24	.001
Mother low-level job	100	0		
Mother not high school graduate	18.6	5.8	733.32	.001
Parents' attitude negative	8.7	4.1	153.53	.001
Language not English	7.3	4.3	64.49	.001
Broken home	47.6	31.4	396.37	.001
Moved frequently	21.2	14.5	114.50	.001
Changed schools frequently	27.4	22.4	48.48	.001
Parents divorced last year	8.3	6.5	16.92	.001

Table 37

Comparison of students whose mother did not graduate from high school with
students whose mother did graduate on various risk items

(N = 1,809 and 19,897)

Item	At Risk	Not At Risk	Chi Square	Level of Significance
Suspended from school	14.2	5.2	241.09	.001
Attempted suicide	1.8	.7	22.52	.001
Involved in pregnancy	1.7	.5	45.34	.001
Student sold drugs	1.6	.5	38.27	.001
Student used drugs	6.6	2.6	93.85	.001
Family used drugs	9.8	2.9	237.63	.001
Student used alcohol	9.7	4.2	114.65	.001
Parent alcoholic	9.7	3.1	208.30	.001
Student arrested	3.4	1.1	70.80	.001
Student abused	4.6	1.6	82.68	.001
Low grades in school	25.4	12.3	244.47	.001
Failed courses	19.6	8.0	272.60	.001
Overage in grade	31.0	14.9	316.37	.001
Retained in grade	30.6	12.8	427.65	.001
Excessive absences	14.2	6.2	164.23	.001
Low self-esteem	22.4	11.5	182.50	.001
Referred special education	13.4	9.5	28.54	.001
Low reading scores	16.7	8.7	125.88	.001
Parent sick last year	7.7	3.7	69.39	.001
Parent died last year	1.5	.9	7.35	.01
Parent lost job last year	11.3	3.3	275.80	.001
Friend died last year	9.3	4.2	98.92	.001
Student ill last year	6.4	2.9	62.85	.001
Sibling died last year	1.3	.5	19.33	.001
Father low-level job	41.3	14.6	844.62	.001
Father not high school graduate	54.4	3.5	6015.63	.001
Mother low-level job	43.8	17.4	733.32	.001
Mother not high school graduate	100	0		
Parents' attitude negative	13.2	4.3	278.10	.001
Language not English	16.1	3.9	526.85	.001
Broken home	46.0	33.5	114.81	.001
Moved frequently	23.8	15.1	95.22	.001
Changed schools frequently	25.3	23.2	4.28	
Parents divorced last year	9.7	6.6	25.92	.001

Table 38

Comparison of students whose parents had negative attitude with
those whose parents did not on various risk items

(N = 1,089 and 20,617)

Item	At Risk	Not At Risk	Chi Square	Level of Significance
Suspended from school	16.6	5.4	233.85	.001
Attempted suicide	1.4	.8	4.58	
Involved in pregnancy	1.6	.5	19.78	.001
Student sold drugs	2.2	.5	55.30	.001
Student used drugs	11.2	2.5	278.82	.001
Family used drugs	11.5	3.0	221.78	.001
Student used alcohol	12.0	4.2	143.10	.001
Parent alcoholic	12.3	3.2	248.86	.001
Student arrested	5.1	1.1	127.33	.001
Student abused	8.5	1.5	277.86	.001
Low grades in school	38.7	12.1	631.46	.001
Failed courses	25.5	8.1	386.16	.001
Overage in grade	31.2	15.4	190.46	.001
Retained in grade	32.7	13.3	317.38	.001
Excessive absences	19.1	6.3	265.91	.001
Low self-esteem	53.4	10.2	1783.43	.001
Referred special education	17.3	9.4	72.15	.001
Low reading scores	22.6	8.7	235.10	.001
Parent sick last year	5.6	4.0	7.16	.01
Parent died last year	1.6	.9	5.34	
Parent lost job last year	8.7	3.8	66.46	.001
Friend died last year	4.8	4.6	.08	
Student ill last year	5.2	3.1	15.10	.001
Sibling died last year	1.1	.5	6.61	.01
Father low-level job	30.6	16.1	154.02	.001
Father not high school graduate	19.9	7.1	238.46	.001
Mother low-level job	34.2	18.9	153.53	.001
Mother not high school graduate	21.9	7.6	278.10	.001
Parents' attitude negative	100	0		
Language not English	7.8	4.8	20.48	.001
Broken home	51.5	33.7	145.44	.001
Moved frequently	24.1	15.4	58.59	.001
Changed schools frequently	30.9	23.0	36.09	.001
Parents divorced last year	11.7	6.6	41.91	.001

Table 39

Comparison of students from homes in which English was not language spoken
with students from homes in which it was on various risk items

(N = 1,067 and 20,639)

Item	At Risk	Not At Risk	Chi Square	Level of Significance
Suspended from school	9.0	5.8	18.73	.001
Attempted suicide	1.2	.8	2.31	
Involved in pregnancy	.9	.6	2.65	
Student sold drugs	1.2	.5	8.65	.003
Student used drugs	4.4	2.8	8.85	.003
Family used drugs	4.5	3.4	3.70	
Student used alcohol	3.9	4.7	1.18	
Parent alcoholic	4.8	3.6	4.40	
Student arrested	2.9	1.2	23.00	.001
Student abused	2.2	1.9	.88	
Low grades in school	19.5	13.1	36.08	.001
Failed courses	17.0	8.5	89.24	.001
Overage in grade	26.5	15.7	88.02	.001
Retained in grade	20.1	14.0	30.56	.001
Excessive absences	10.3	6.7	20.35	.001
Low self-esteem	15.6	12.2	10.49	.001
Referred special education	10.0	9.8	.06	
Low reading scores	17.0	9.0	75.80	.001
Parent sick last year	5.1	4.0	2.98	
Parent died last year	1.2	.9	1.16	
Parent lost job last year	7.3	3.8	31.93	.001
Friend died last year	5.2	4.6	1.08	
Student ill last year	3.8	3.2	1.44	
Sibling died last year	1.4	.5	15.43	.001
Father low-level job	33.0	16.0	208.38	.001
Father not high school graduate	24.3	6.9	429.60	.001
Mother low-level job	29.1	19.1	64.49	.001
Mother not high school graduate	27.3	7.4	526.85	.001
Parents' attitude negative	8.0	4.9	20.48	.001
Language not English	100	0		
Broken home	29.9	34.8	10.86	.001
Moved frequently	26.5	15.3	96.73	.001
Changed schools frequently	30.8	23.0	35.14	.001
Parents divorced last year	6.6	6.9	.13	

Table 40

Comparison of students who lived in broken home situation
with those who did not on various risk items

(N = 7,505 and 14,201)

Item	At Risk	Not At Risk	Chi Square	Level of Significance
Suspended from school	9.6	4.0	267.54	.001
Attempted suicide	1.3	.5	40.81	.001
Involved in pregnancy	1.0	.4	34.74	.001
Student sold drugs	.8	.4	15.79	.001
Student used drugs	4.3	2.2	78.65	.001
Family used drugs	6.0	2.1	232.52	.001
Student used alcohol	6.4	3.7	86.25	.001
Parent alcoholic	5.9	2.4	179.00	.001
Student arrested	2.1	.9	54.15	.001
Student abused	3.5	1.0	164.13	.001
Low grades in school	18.5	10.7	256.61	.001
Failed courses	12.8	6.9	211.29	.001
Overage in grade	22.5	12.9	329.90	.001
Retained in grade	21.0	10.7	421.17	.001
Excessive absences	10.2	5.1	198.87	.001
Low self-esteem	17.4	9.7	263.14	.001
Referred special education	11.5	8.9	38.46	.001
Low reading scores	12.2	7.8	117.71	.001
Parent sick last year	5.6	3.2	67.51	.001
Parent died last year	2.1	.3	188.81	.001
Parent lost job last year	5.5	3.2	68.31	.001
Friend died last year	6.0	3.9	52.10	.001
Student ill last year	4.3	2.6	41.95	.001
Sibling died last year	.7	.4	8.70	.003
Father low-level job	17.3	16.6	1.47	
Father not high school graduate	8.1	7.5	2.26	
Mother low-level job	27.0	15.7	396.37	.001
Mother not high school graduate	11.1	6.9	114.81	.001
Parents' attitude negative	7.5	3.7	145.45	.001
Language not English	4.3	5.3	10.86	.001
Broken home	100	0		
Moved frequently	25.4	10.8	789.54	.001
Changed schools frequently	28.4	20.7	164.07	.001
Parents divorced last year	15.8	2.1	1456.42	.001

Table 41

Comparison of students who moved frequently with students
who did not move frequently on various risk items

(N = 3,432 and 18,274)

Item	At Risk	Not At Risk	Chi Square	Level of Significance
Suspended from school	7.8	5.6	25.39	.001
Attempted suicide	1.4	.7	17.51	.001
Involved in pregnancy	1.2	.5	25.34	.001
Student sold drugs	1.3	.4	37.81	.001
Student used drugs	5.0	2.5	60.12	.001
Family used drugs	6.0	3.0	77.86	.001
Student used alcohol	6.5	4.3	32.77	.001
Parent alcoholic	6.5	3.1	99.49	.001
Student arrested	2.7	1.0	64.54	.001
Student abused	4.0	1.5	97.22	.001
Low grades in school	18.9	12.4	104.96	.001
Failed courses	13.4	8.1	98.88	.001
Overage in grade	22.8	15.0	128.95	.001
Retained in grade	20.1	13.2	111.79	.001
Excessive absences	9.4	6.4	39.22	.001
Low self-esteem	18.3	11.3	130.64	.001
Referred special education	10.9	9.6	5.51	
Low reading scores	11.6	9.0	23.46	.001
Parent sick last year	7.5	3.4	122.43	.011
Parent died last year	1.7	.8	29.37	.001
Parent lost job last year	8.8	3.1	243.98	.001
Friend died last year	7.1	4.1	57.28	.001
Student ill last year	5.0	2.9	39.82	.001
Sibling died last year	.9	.5	9.75	.002
Father low-level job	21.1	16.1	52.25	.001
Father not high school graduate	10.8	7.2	54.84	.001
Mother low-level job	26.3	18.4	114.50	.001
Mother not high school graduate	12.6	7.5	95.22	.001
Parents' attitude negative	7.6	4.5	58.59	.001
Language not English	8.2	4.3	96.73	.001
Broken home	55.5	30.6	789.54	.001
Moved frequently	100	0		
Changed schools frequently	69.2	14.7	4783.03	.001
Parents divorced last year	14.9	5.3	418.01	.001

Table 42

Comparison of students who changed schools frequently with
those who did not on various risk items

(N = 5,068 and 16,638)

Item	At Risk	Not At Risk	Chi Square	Level of Significance
Suspended from school	5.7	6.0	.48	
Attempted suicide	1.0	.7	4.54	
Involved in pregnancy	.7	.5	2.25	
Student sold drugs	.8	.5	7.21	.01
Student used drugs	3.5	2.7	9.00	.003
Family used drugs	3.7	3.4	1.33	
Student used alcohol	4.5	4.6	.09	
Parent alcoholic	4.2	3.4	7.55	.01
Student arrested	1.9	1.1	17.74	.001
Student abused	2.5	1.7	13.66	.001
Low grades in school	16.3	12.5	46.99	.001
Failed courses	9.7	8.7	4.83	
Overage in grade	19.4	15.2	50.27	.001
Retained in grade	17.0	13.5	39.01	.001
Excessive absences	7.6	6.7	5.33	
Low self-esteem	16.1	11.2	84.68	.001
Referred special education	10.6	9.6	4.69	
Low reading scores	10.3	9.1	7.09	.01
Parent sick last year	4.9	3.8	13.43	.001
Parent died last year	1.2	.8	8.01	.01
Parent lost job last year	5.2	3.6	25.01	.001
Friend died last year	3.7	4.9	10.86	.001
Student ill last year	3.5	3.1	2.19	
Sibling died last year	.5	.6	.31	
Father low-level job	19.9	15.9	43.38	.001
Father not high school graduate	8.5	7.5	5.99	.01
Mother low-level job	23.0	18.6	48.48	.001
Mother not high school graduate	9.0	8.1	4.28	
Parents' attitude negative	6.6	4.5	36.09	.001
Language not English	6.5	4.4	35.13	.001
Broken home	42.1	32.3	164.07	.001
Moved frequently	46.8	6.4	4783.03	.001
Changed schools frequently	100	0		
Parents divorced last year	9.4	6.0	69.90	.001

Table 43

Comparison of students whose parents divorced during last year with
those whose parents did not on various risk items

(N = 1,484 and 20,222)

Item	At Risk	Not At Risk	Chi Square	Level of Significance
Suspended from school	8.8	5.7	23.71	.001
Attempted suicide	2.2	.7	39.54	.001
Involved in pregnancy	1.6	.5	30.68	.001
Student sold drugs	1.1	.5	7.59	.01
Student used drugs	5.9	2.7	51.33	.001
Family used drugs	9.5	3.0	175.04	.001
Student used alcohol	8.6	4.3	58.15	.001
Parent alcoholic	11.5	3.0	286.35	.001
Student arrested	2.3	1.2	12.54	.001
Student abused	6.4	1.5	178.18	.001
Low grades in school	16.0	13.2	9.64	.002
Failed courses	12.7	8.7	27.91	.001
Overage in grade	19.3	16.1	11.54	.001
Retained in grade	19.3	13.9	33.29	.001
Excessive absences	12.1	6.5	66.19	.001
Low self-esteem	20.9	11.7	106.51	.001
Referred special education	12.1	9.6	9.74	.002
Low reading scores	11.7	9.2	9.68	.002
Parent sick last year	9.2	3.7	110.41	.001
Parent died last year	1.2	.9	1.59	
Parent lost job last year	12.2	3.4	278.23	.001
Friend died last year	7.2	4.4	24.78	.001
Student ill last year	6.2	3.0	45.77	.001
Sibling died last year	1.9	.4	53.15	.001
Father low-level job	19.3	16.7	6.63	.01
Father not high school graduate	10.7	7.5	19.74	.001
Mother low-level job	23.7	19.3	16.92	.001
Mother not high school graduate	11.9	8.1	25.92	.001
Parents' attitude negative	8.6	4.8	41.91	.001
Language not English	4.7	4.9	.13	
Broken home	80.1	31.2	1456.42	.001
Moved frequently	34.5	14.4	418.01	.001
Changed schools frequently	32.2	22.7	69.90	.001
Parents divorced last year	100	0		

APPENDIX E
COMPARISON OF MEAN SCORES

Table 44

A comparison in 1990 of dropouts with non-dropouts
on four risk scores collected in 1988

1990 Groups	N	Mean	S.D.	t	Scale
Dropouts	37	2.84	1.21	4.27 **	HOME 88
Non-dropouts	702	1.75	1.52		
Dropouts	37	2.11	1.33	6.27 **	FAIL 88
Non-dropouts	702	.87	1.17		
Dropouts	37	1.35	1.60	8.18 **	PAIN 88
Non-dropouts	702	.29	.70		
Dropouts	37	6.38	3.16	8.31 **	TOTAL 88
Non-dropouts	702	2.90	2.44		

** Significant beyond .001 level

Table 45

A comparison in 1990 of students who used drugs with students
who did not use drugs on four risk scores collected in 1988

1990 Groups	N	Mean	S.D.	t	Scale
Drug users	14	2.43	1.70	1.54	HOME 88
Non-drug users	725	1.79	1.52		
Drug users	14	2.21	1.48	4.07 **	FAIL 88
Non-drug users	725	.90	1.19		
Drug users	14	1.43	1.34	5.19 **	PAIN 88
Non-drug users	725	.32	.78		
Drug users	14	6.07	3.22	4.42 **	TOTAL 88
Non-drug users	725	3.02	2.55		

** Significant beyond .001 level

Table 46

A comparison in 1990 of students who sold drugs with students who did not sell drugs on four risk scores collected in 1988

1990 Groups	N	Mean	S.D.	t	Scale
Drug sellers	5	2.20	1.30	.58	HOME 88
Non-drug sellers	734	1.80	1.53		
Drug sellers	5	2.60	1.34	3.13 **	FAIL 88
Non-drug sellers	734	.92	1.20		
Drug sellers	5	1.20	1.79	2.40	PAIN 88
Non-drug sellers	734	.34	.79		
Drug sellers	5	6.00	3.81	2.54	TOTAL 88
Non-drug sellers	734	3.06	2.57		

** Significant beyond .001 level

Table 47

A comparison in 1990 of jailed students with non-jailed students on four risk scores collected in 1988

1990 Groups	N	Mean	S.D.	t	Scale
Jailed	5	1.80	2.17	.01	HOME 88
Non-jailed	734	1.81	1.52		
Jailed	5	3.00	1.87	3.90 **	FAIL 88
Non-jailed	734	.91	1.19		
Jailed	5	1.80	2.05	4.11 **	PAIN 88
Non-jailed	734	.33	.78		
Jailed	5	6.60	3.21	3.07 **	TOTAL 88
Non-jailed	734	3.05	2.57		

** Significant beyond .001 level

Table 48

A comparison in 1990 of students involved in pregnancy with students not involved in pregnancy on four risk scores collected in 1988

1990 Groups	N	Mean	S.D.	t	Scale
Pregnancy	13	2.46	.97	1.57	HOME 88
No pregnancy	725	1.79	1.53		
Pregnancy	13	1.38	1.19	1.38	FAIL 88
No pregnancy	725	.92	1.20		
Pregnancy	13	.46	.78	.54	PAIN 88
No pregnancy	725	.34	.81		
Pregnancy	13	4.31	1.65	1.73	TOTAL 88
No pregnancy	725	3.05	2.60		

Table 49

A comparison in 1990 of abused students with non-abused students on four risk scores collected in 1988

1990 Groups	N	Mean	S.D.	t	Scale
Abused	23	2.52	1.38	2.29	HOME 88
Not abused	716	1.74	1.52		
Abused	23	2.00	1.35	4.39 **	FAIL 88
Not abused	716	.89	1.19		
Abused	23	.96	1.46	3.76 **	PAIN 88
Not abused	716	.32	.77		
Abused	23	5.48	2.98	4.57 **	TOTAL 88
Not abused	716	3.00	2.54		

** Significant beyond .001 level

Table 50

A comparison in 1990 of arrested students with non-arrested students
on four risk scores collected in 1988

1990 Groups	N	Mean	S.D.	t	Scale
Arrested	13	2.46	1.85	1.57	HOME 88
Not arrested	726	1.79	1.52		
Arrested	13	2.15	1.68	3.73 **	FAIL 88
Not arrested	726	.91	1.19		
Arrested	13	1.46	1.27	5.15 **	PAIN 88
Not arrested	726	.32	.78		
Arrested	13	6.08	3.52	4.26 **	TOTAL 88
Not arrested	726	3.02	2.54		

** Significant beyond .001 level

Table 51

A comparison in 1990 of students seriously ill with students not seriously ill
on four risk scores collected in 1988

1990 Groups	N	Mean	S.D.	t	Scale
Seriously ill	11	2.00	1.84	.43	HOME 88
Not ill	727	1.80	1.52		
Seriously ill	11	1.72	1.19	2.23	FAIL 88
Not ill	727	.91	1.20		
Seriously ill	11	.64	1.21	1.22	PAIN 88
Not ill	727	.34	.80		
Seriously ill	11	4.36	3.08	1.66	TOTAL 88
Not ill	727	3.06	2.58		

Table 52

A comparison in 1990 of students who drink alcohol with students who do not drink alcohol on four risk scores collected in 1988

1990 Groups	N	Mean	S.D.	t	Scale
Drinkers	34	2.06	1.30	.99	HOME 88
Non-drinkers	705	1.79	1.53		
Drinkers	34	1.53	1.44	2.99 **	FAIL 88
Non-drinkers	705	.90	1.19		
Drinkers	34	.94	1.21	4.51 **	PAIN 88
Non-drinkers	705	.31	.77		
Drinkers	34	4.53	3.00	3.37 **	TOTAL 88
Non-drinkers	705	3.01	2.55		

** Significant beyond .001 level

Table 53

A comparison in 1990 of students with some risk with students with no risk on four risk scores collected in 1988

1990 Groups	N	Mean	S.D.	t	Scale
Some risk	109	2.33	1.51	3.94 **	HOME 88
No risk	629	1.71	1.51		
Some risk	109	1.72	1.39	7.79 **	FAIL 88
No risk	629	.79	1.12		
Some risk	109	.88	1.28	7.88 **	PAIN 88
No risk	629	.25	.65		
Some risk	109	4.96	2.98	8.64 **	TOTAL 88
No risk	629	2.75	2.38		

** Significant beyond .001 level

APPENDIX F
PREDICTING RISK

Table 54
Predicting courses failed in school in 1990 with 1988 sub-scale scores
(N = 739)

Pattern of 1988 Sub-Scale Scores	Distribution of Cases 1990		Chi Square Value
HOME 88 >1 and FAIL 88 >0	415	75	23.51 **
	173	76	
FAIL 88 >0	327	42	37.14 **
	261	109	

** Significant beyond .001 level

Table 55
Predicting low grades in school in 1990 with 1988 sub-scale scores
(N = 739)

Pattern of 1988 Sub-Scale Scores	Distribution of Cases 1990		Chi Square Value
FAIL 88 >1	511	48	82.29 **
	114	66	
FAIL 88 >0	344	25	42.28 **
	281	89	

** Significant beyond .001 level

Table 56
Predicting low reading scores in school in 1990 with 1988 sub-scale scores
(N = 739)

Pattern of 1988 Sub-Scale Scores	Distribution of Cases 1990		Chi Square Value
FAIL 88 >1	525	34	39.36 **
	140	40	
FAIL 88 >0	352	17	23.91 **
	313	57	

** Significant beyond .001 level

Table 57

Predicting retained in grade in 1990 with 1988 sub-scale scores
(N = 739)

Pattern of 1988 Sub-Scale Scores	Distribution of Cases 1990		Chi Square Value
FAIL 88 >1	542	17	42.45 **
	150	30	
FAIL 88 >0	364	5	31.00 **
	328	42	

** Significant beyond .001 level

Table 58

Predicting student arrest in 1990 with 1988 sub-scale scores
(N = 739)

Pattern of 1988 Sub-Scale Scores	Distribution of Cases 1990		Chi Square Value
PAIN 88 >0	580	3	24.75 **
	146	10	
FAIL 88 >1	554	5	9.93 **
	172	8	
HOME 88 >2	504	4	8.88
	222	9	

** Significant beyond .001 level

Table 59
Predicting drug use in 1990 with 1988 sub-scale scores
(N = 739)

Pattern of 1988 Sub-Scale Scores	Distribution of Cases 1990		Chi Square Value
PAIN 88 >0	578	5	15.97 **
	147	9	
FAIL 88 >1	555	4	17.16 **
	170	10	
FAIL 88 >0	368	1	10.45 **
	357	13	
TOTAL 88 >4	535	4	14.23 **
	190	10	
TOTAL 88 >3	462	3	10.53 **
	263	11	
TOTAL 88 >5	606	6	16.01 **
	119	8	
TOTAL 88 >6	653	7	23.10 **
	72	7	
PAIN 88 >0 or FAIL 88 >1 and HOME 88 >0	595	5	19.33 **
	130	9	
PAIN 88 >0 or FAIL 88 >0 and HOME 88 >0	583	5	16.88 **
	142	9	
FAIL 88 >1 or HOME 88 >4	532	3	18.55 **
	193	11	
FAIL 88 >1 or PAIN 88 >1	528	1	23.21 **
	197	12	
FAIL 88 >1 or PAIN 88 >0	462	1	18.79 **
	263	13	
FAIL 88 >1 or HOME 88 >4 or PAIN 88 >1	506	1	25.03 **
	219	13	
FAIL 88 >1 or HOME 88 >3 or PAIN 88 >0	433	1	15.67 **
	292	13	
FAIL 88 >1 or HOME 88 >3	501	2	18.99 **
	224	12	

** Significant beyond .001 level

Table 60

Predicting physical or sexual abuse in 1990 with 1988 sub-scale scores
(N = 739)

Pattern of 1988 Sub-Scale Scores	Distribution of Cases 1990		Chi Square Value
HOME 88 >0 and FAIL 88 >1	571	8	26.56 **
	145	15	
HOME 88 >1 and FAIL 88 >1	596	9	29.21 **
	120	14	
HOME 88 >2 and FAIL 88 >1	636	11	34.37 **
	80	12	
HOME 88 >2 and FAIL 88 >0	567	10	16.60 **
	149	13	
HOME 88 >1 and FAIL 88 >0	483	7	13.67 **
	233	16	
FAIL 88 >1	552	7	26.33 **
	164	16	
FAIL 88 >0	366	3	12.92 **
	350	20	
TOTAL 88 >4	529	10	10.44 **
	187	13	
TOTAL 88 >3	459	6	13.81 **
	257	17	
TOTAL 88 >5	600	12	15.66 **
	116	11	
TOTAL 88 >6	647	13	26.73 **
	69	10	
FAIL 88 >1 or PAIN 88 >1 or HOME 88 >3	429	5	13.40 **
	287	18	
FAIL 88 >1 or PAIN 88 >1	524	6	24.37 **
	192	17	
FAIL 88 >1 or PAIN 88 >0	458	5	16.98 **
	258	18	
FAIL 88 >1 or HOME 88 >3	496	7	15.46 **
	220	16	
FAIL 88 >1 or HOME 88 >4	528	7	20.91 **
	188	16	
FAIL 88 >1 or HOME 88 >4 or PAIN 88 >1	501	6	19.92 **
	215	17	

** Significant beyond .001 level

Table 61

Predicting student's use of alcohol in 1990 with 1988 sub-scale scores
(N = 739)

Pattern of 1988 Sub-Scale Scores	Distribution of Cases 1990		Chi Square Value
FAIL 88 >1 or PAIN 88 >1	514	16	10.69 **
	191	18	
FAIL 88 >1 or PAIN 88 >1 or HOME 88 >3	422	12	8.07
	283	22	

** Significant beyond .001 level

Table 62

Predicting dropouts from school in 1990 with 1988 sub-scale scores
(N = 739)

Pattern of 1988 Sub-Scale Scores	Distribution of Cases 1990		Chi Square Value
PAIN 88 >0 or FAIL 88 >0 and HOME 88 >0	571	17	27.08 **
	131	20	
PAIN 88 >0 or FAIL 88 >1 and HOME 88 >0	583	17	31.68 **
	119	20	
HOME 88 >0 and FAIL 88 >1	565	14	37.68 **
	137	23	
HOME 88 >1 and FAIL 88 >1	591	14	50.87 **
	111	23	
HOME 88 >2 and FAIL 88 >1	636	21	33.89 **
	76	16	
HOME 88 >2 and FAIL 88 >0	560	17	23.50 **
	142	20	
HOME 88 >1 and FAIL 88 >0	486	4	53.69 **
	216	33	
PAIN 88 >0 and FAIL >0	611	18	40.88 **
	91	19	
PAIN 88 >0	566	17	25.38 **
	136	20	

Predicting dropouts from school in 1990 with 1988 sub-scale scores (continued)
(N = 739)

Pattern of 1988 Sub-Scale Scores	Distribution of Cases 1990		Chi Square Value
PAIN 88 >1	659	24	42.23 **
	43	13	
FAIL 88 >1	545	14	30.21 **
	157	23	
FAIL 88 >0	366	3	27.25 **
	336	34	
HOME 88 >2	492	16	11.79 **
	210	21	
TOTAL 88 >5	595	17	37.20 **
	107	20	
TOTAL 88 >4	527	12	32.37 **
	175	25	
TOTAL 88 >6	641	19	58.78 **
	61	18	
TOTAL 88 >2	359	3	26.04 **
	343	34	
TOTAL 88 >3	457	8	28.48 **
	245	29	
FAIL 88 >1 or PAIN 88 >1	519	11	33.86 **
	183	26	
FAIL 88 >1 or PAIN 88 >0	453	10	21.12 **
	249	27	
FAIL 88 >1 or HOME 88 >3	409	13	19.43 **
	212	24	
FAIL 88 >1 or HOME 88 >4	522	13	27.06 **
	180	24	
FAIL 88 >1 or HOME 88 >4 or PAIN 88 >1	496	11	27.33 **
	206	26	

** Significant beyond .001 level

APPENDIX G
COMPARISON OF RISK

Chart 1

Suspended from school (N = 1,290) vs. nonsuspended (N = 20,416)
 Compared on personal pain risk items (percent)

(Data from table 10)

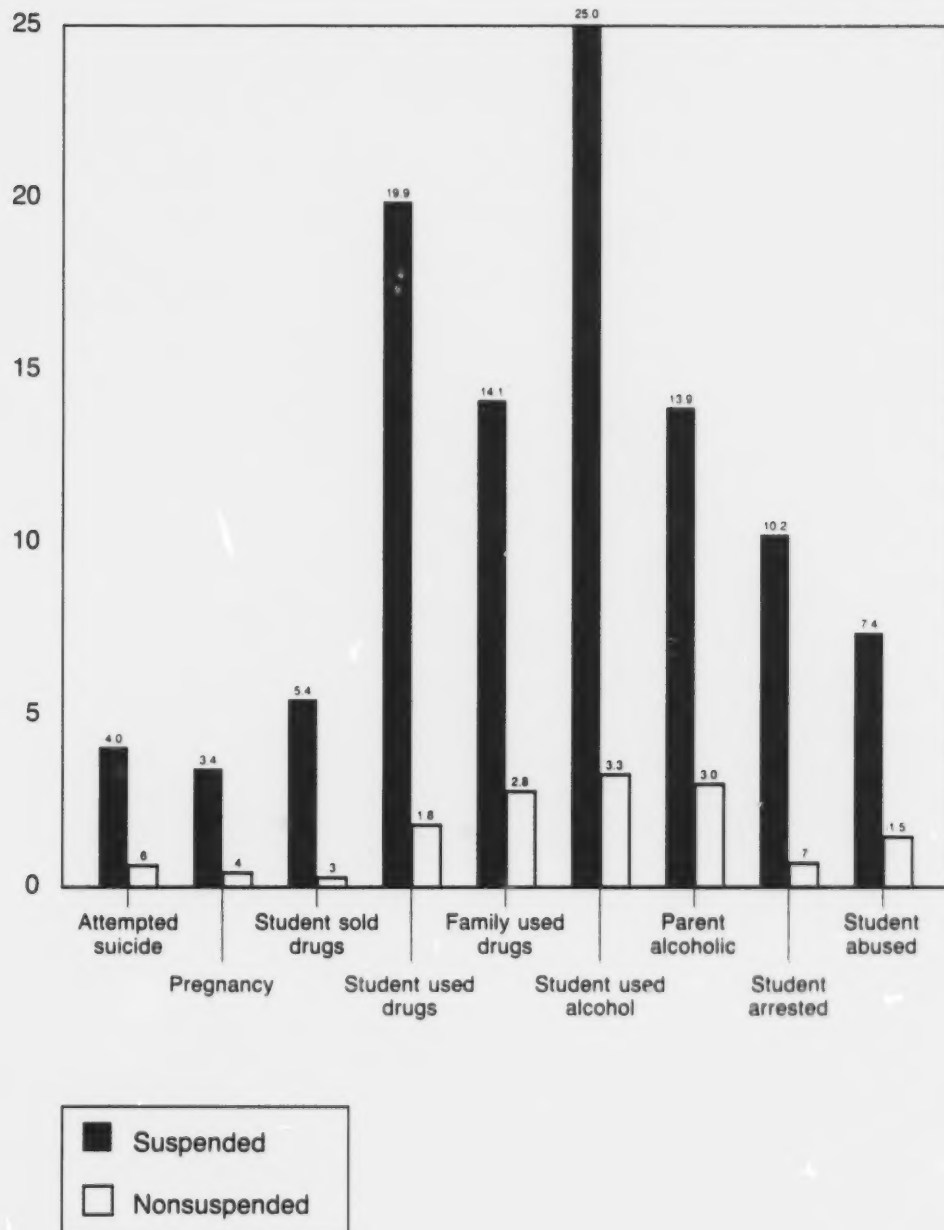


Chart 2

Attempted suicide (N = 176) vs. did not attempt suicide (N = 21,530)
Compared on personal pain risk items (percent)

(Data from table 11)

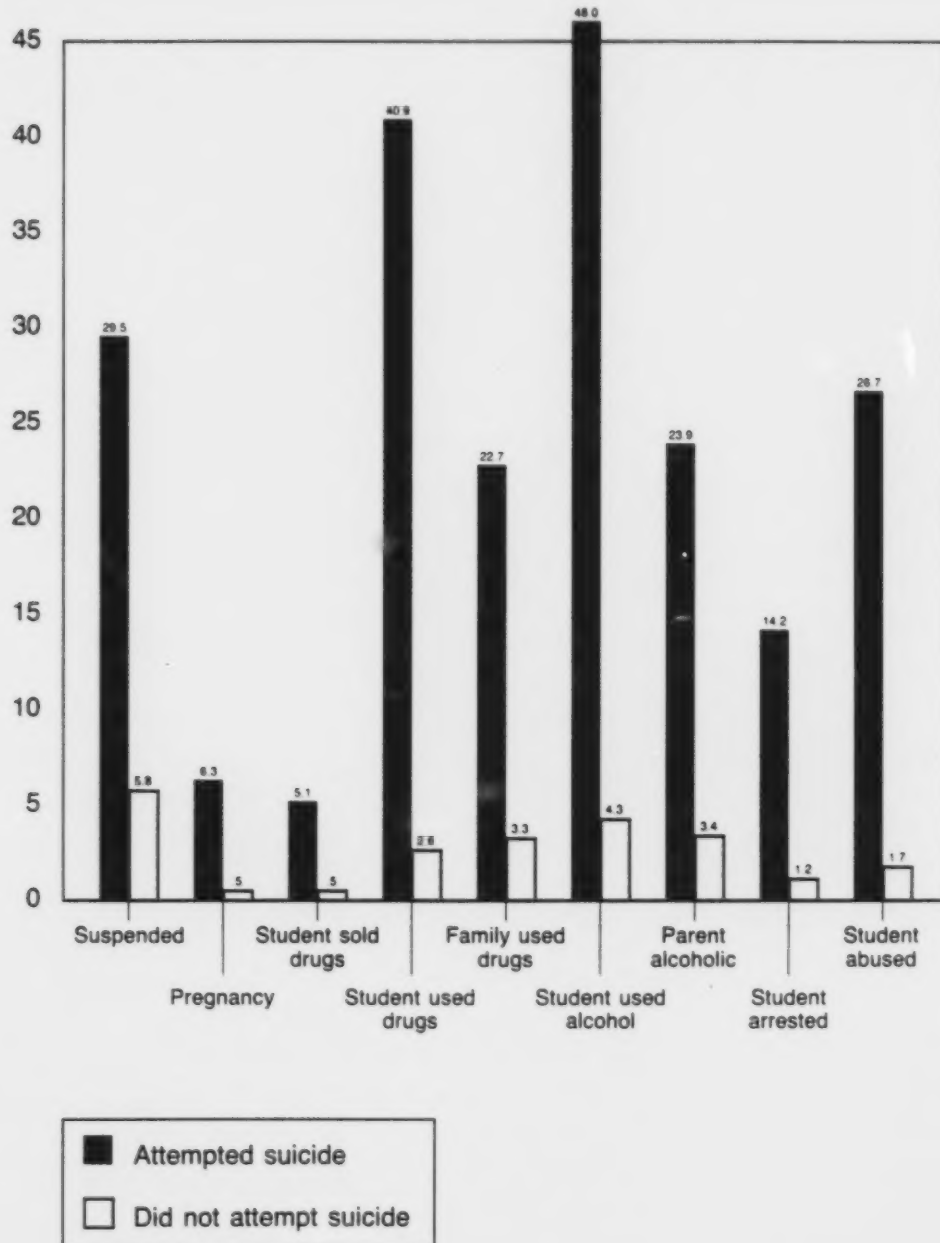


Chart 3

Involved in pregnancy (N = 124) vs. not involved in pregnancy (N = 21,582)
 Compared on personal pain risk items (percent)

(Data from table 12)

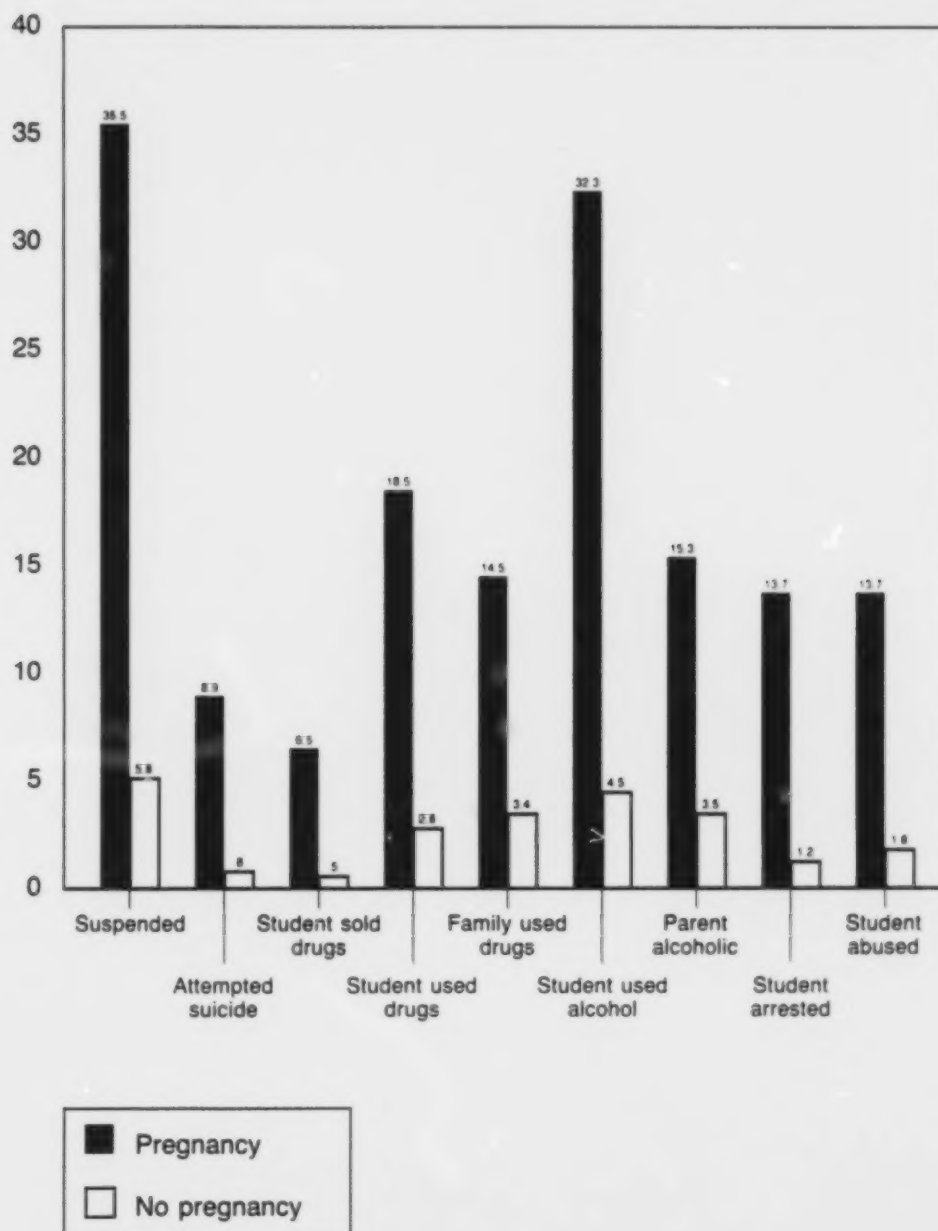


Chart 4

Student sold drugs (N = 122) vs. student did not sell drugs (N = 21,584)
 Compared on personal pain risk items (percent)

(Data from table 13)

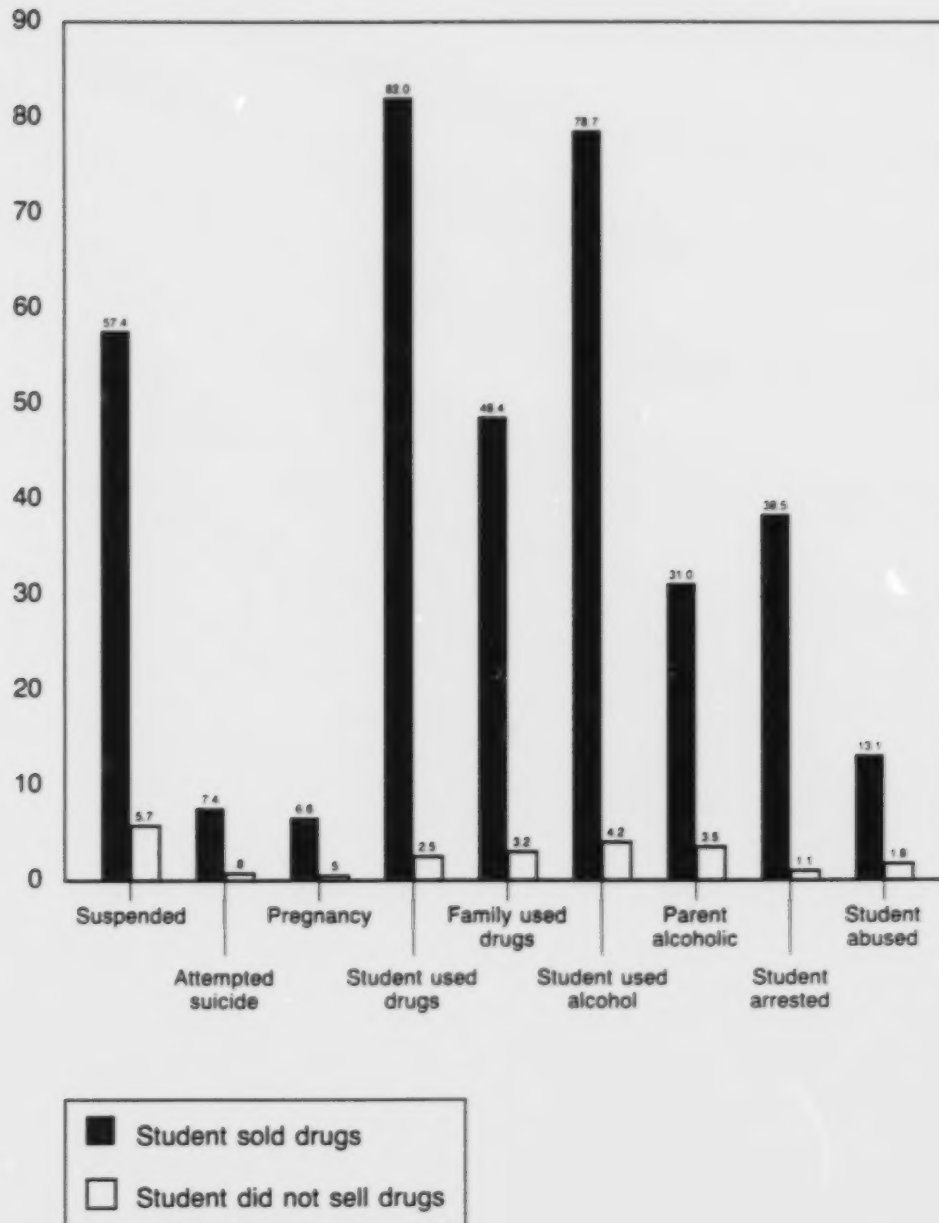


Chart 5

Student used drugs (N = 632) vs. student did not use drugs (N = 21,074)
 Compared on personal pain risk items (percent)

(Data from table 14)

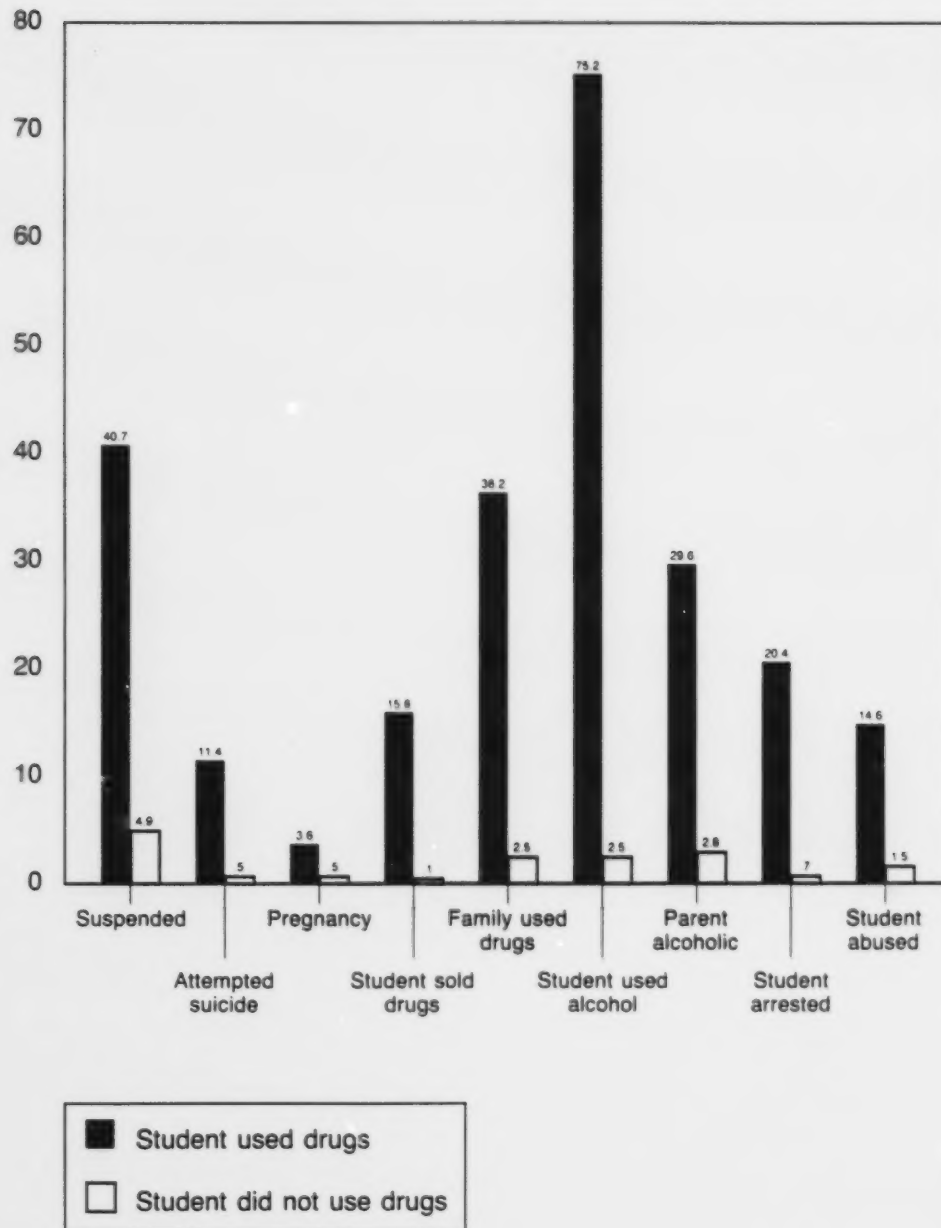


Chart 6

Family used drugs (N = 749) vs. family did not use drugs (N = 20,957)
 Compared on personal pain risk items (percent)

(Data from table 15)

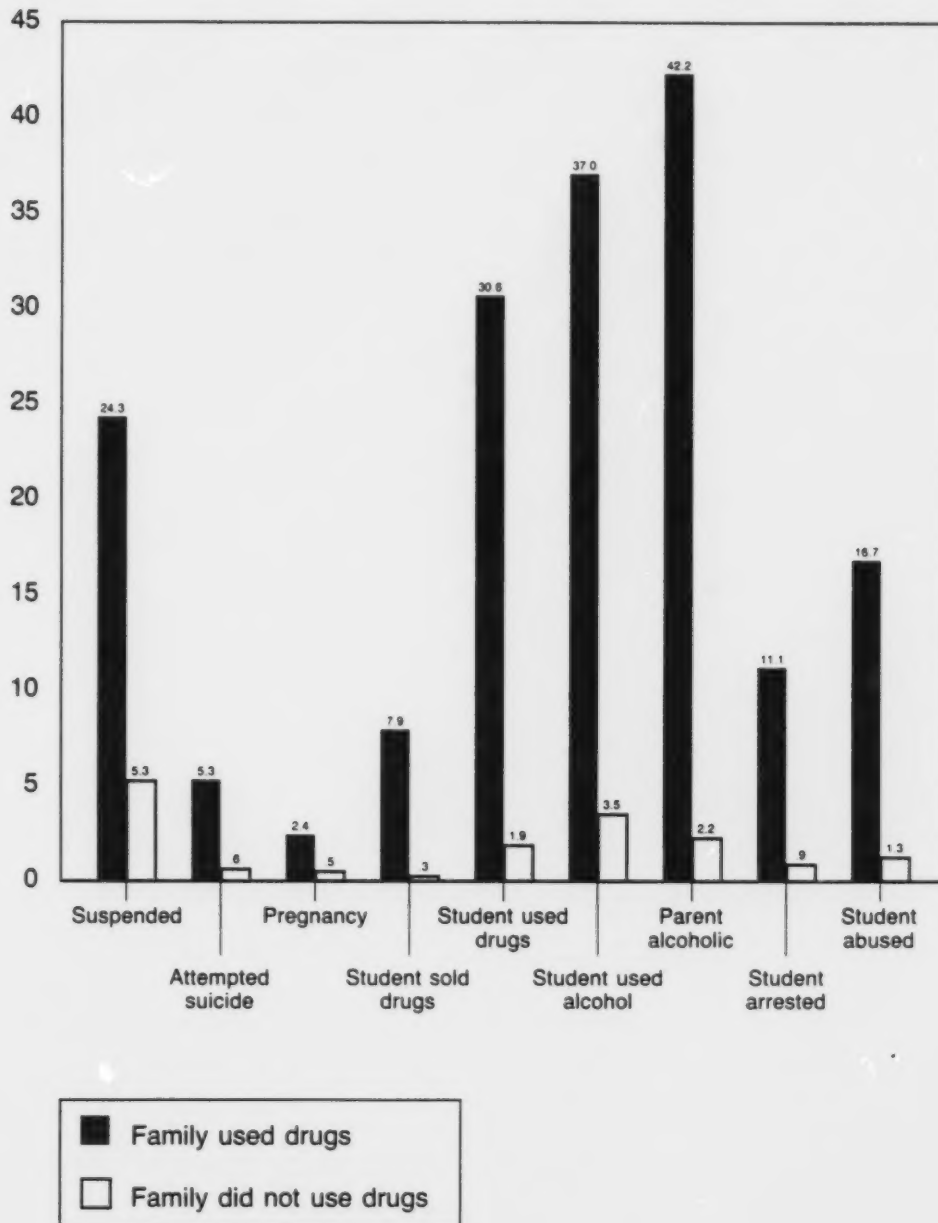


Chart 7

Student used alcohol (N = 1,002) vs. student did not use alcohol (N = 20,704)
Compared on personal pain risk items (percent)

(Data from table 16)

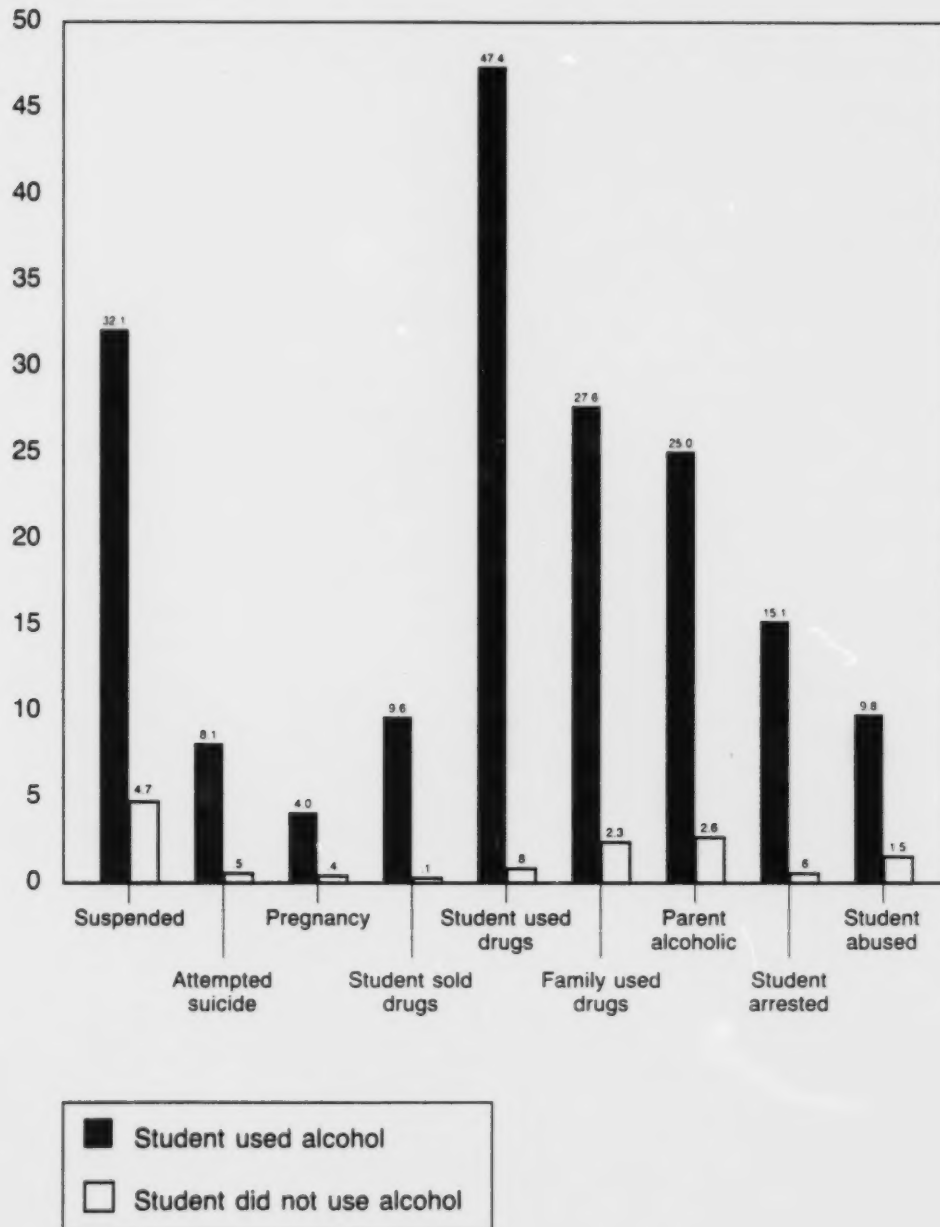


Chart 8

Parent alcoholic (N = 784) vs. parent not alcoholic (N = 20,922)
 Compared on personal pain risk items (percent)

(Data from table 17)

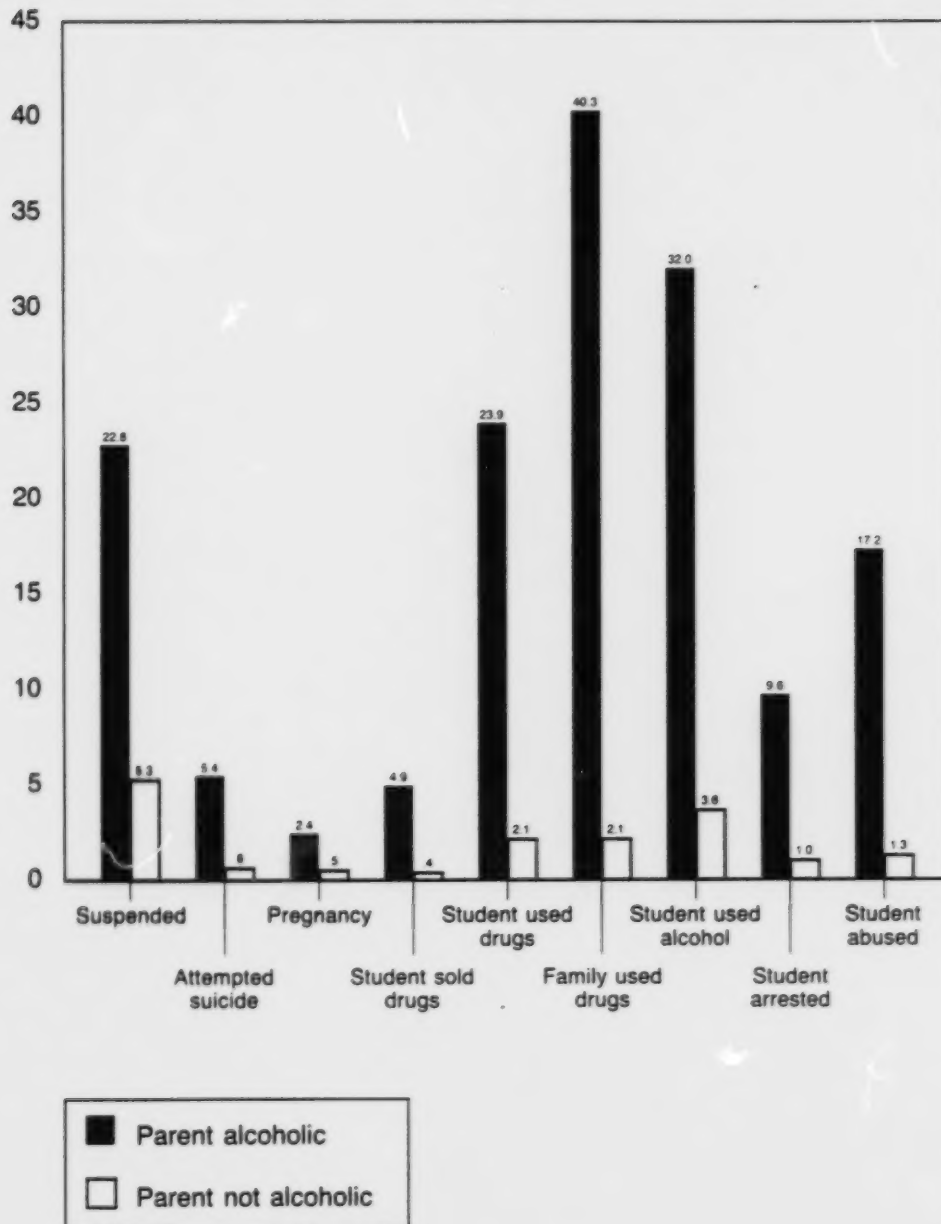


Chart 9

Student was arrested (N = 280) vs. student not arrested (N = 21,426)
 Compared on personal pain risk items (percent)

(Data from table 18)

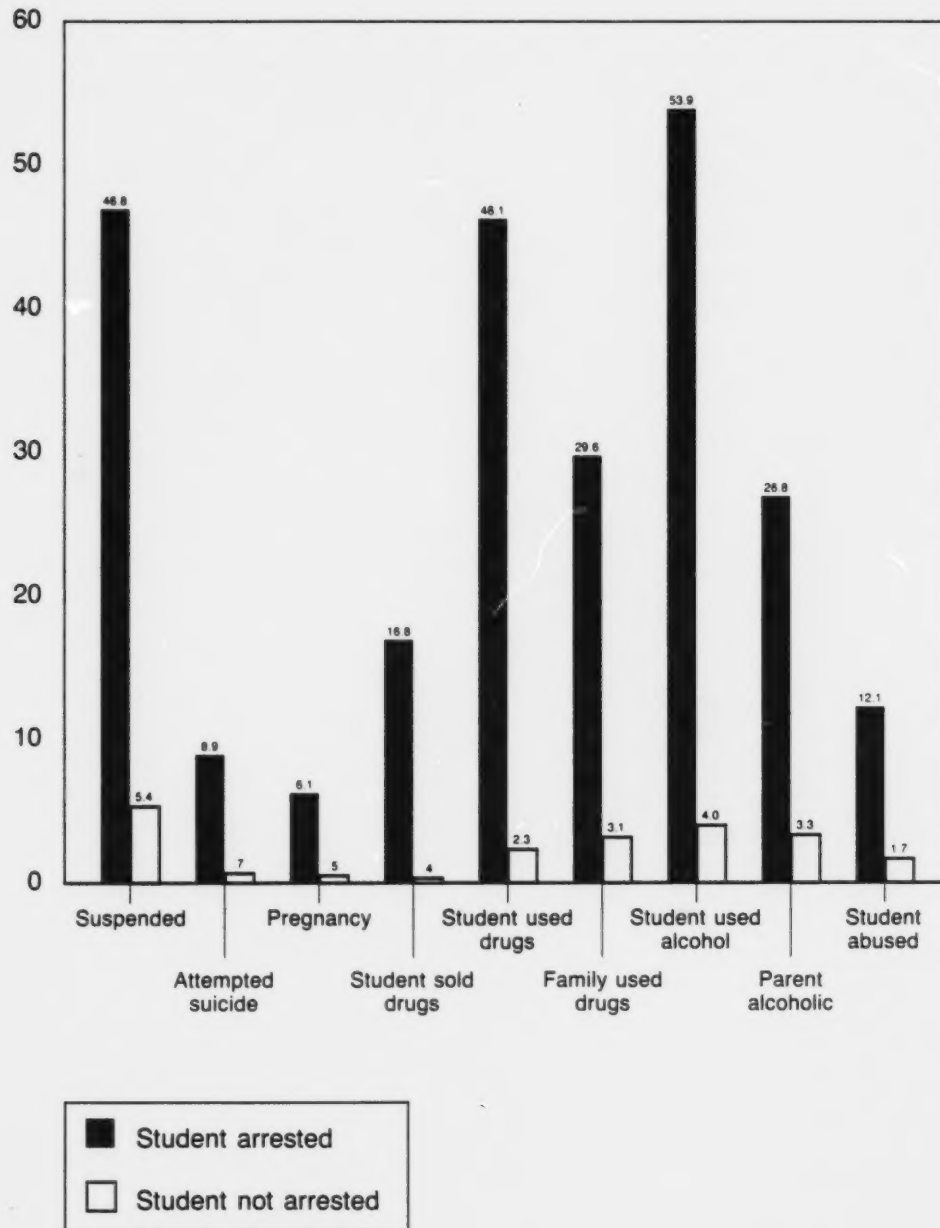


Chart 10

Student was abused (N = 406) vs. student was not abused (N = 21,300)
 Compared on personal pain risk items (percent)

(Data from table 19)

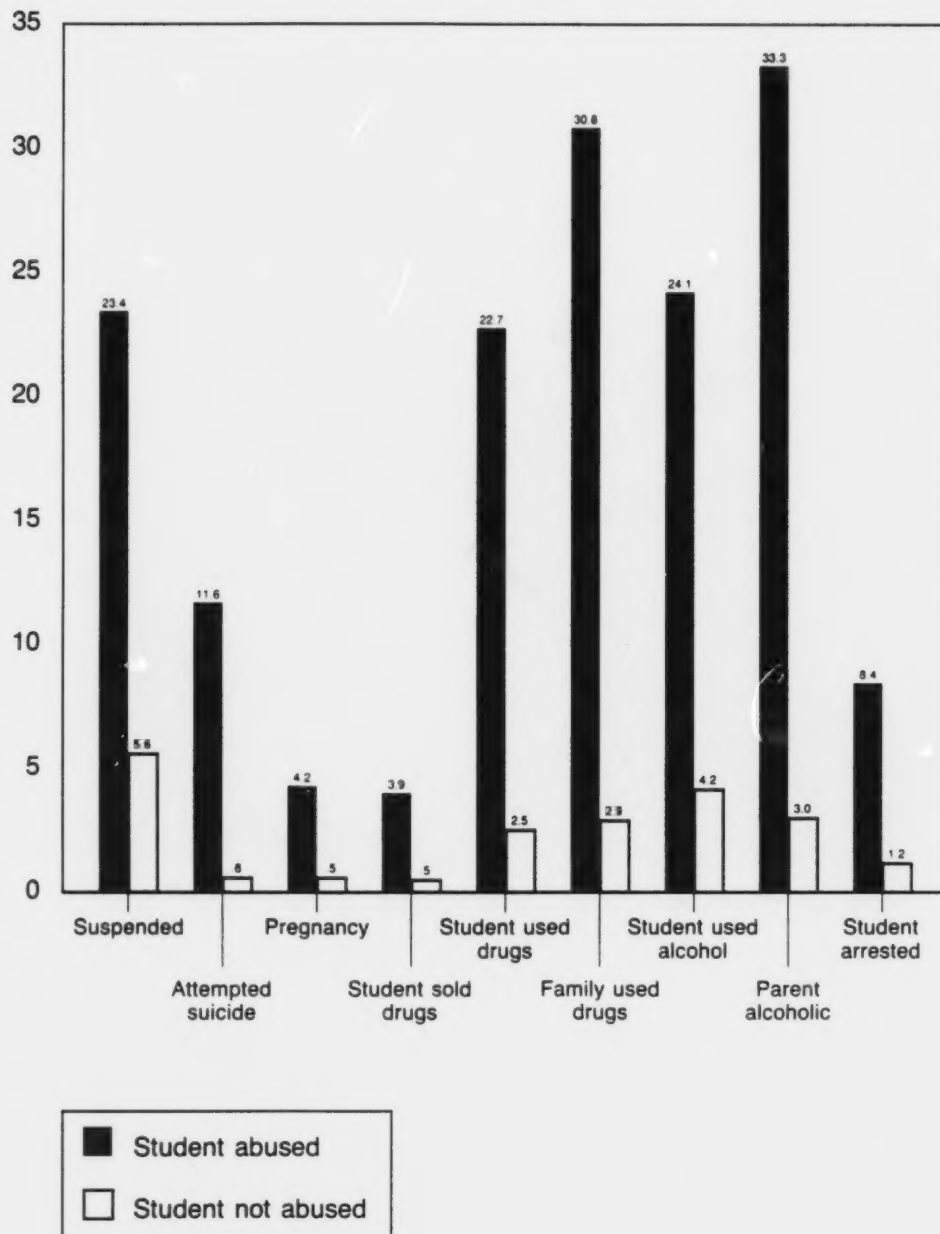


Chart 11

Low grades in school (N = 2,906) vs. grades not low (N = 18,800)
Compared on personal pain risk items (percent)

(Data from table 20)

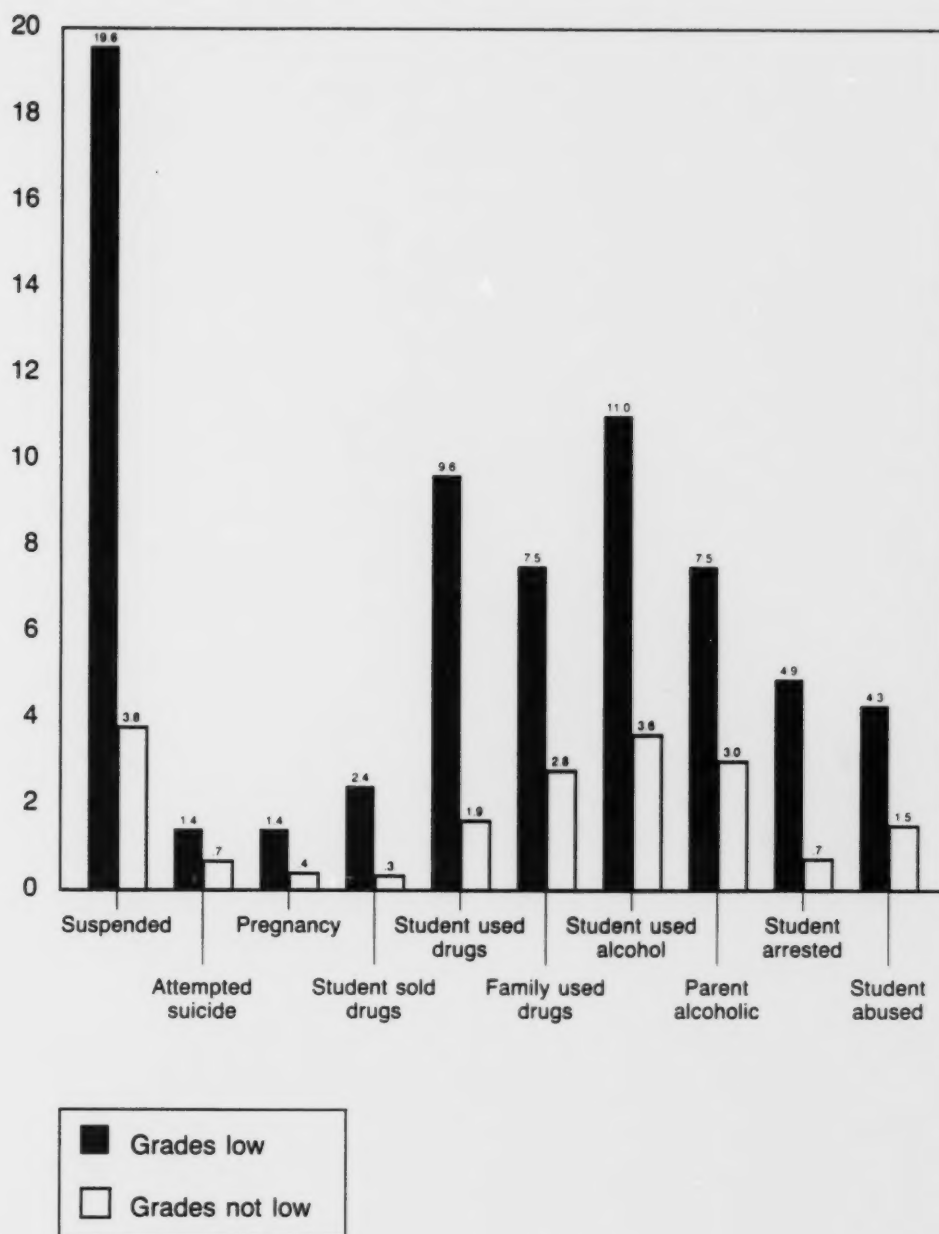


Chart 12

Student failed courses (N = 1,944) vs. student did not fail courses (N = 19,762)
 Compared on personal pain risk items (percent)

(Data from table 21)

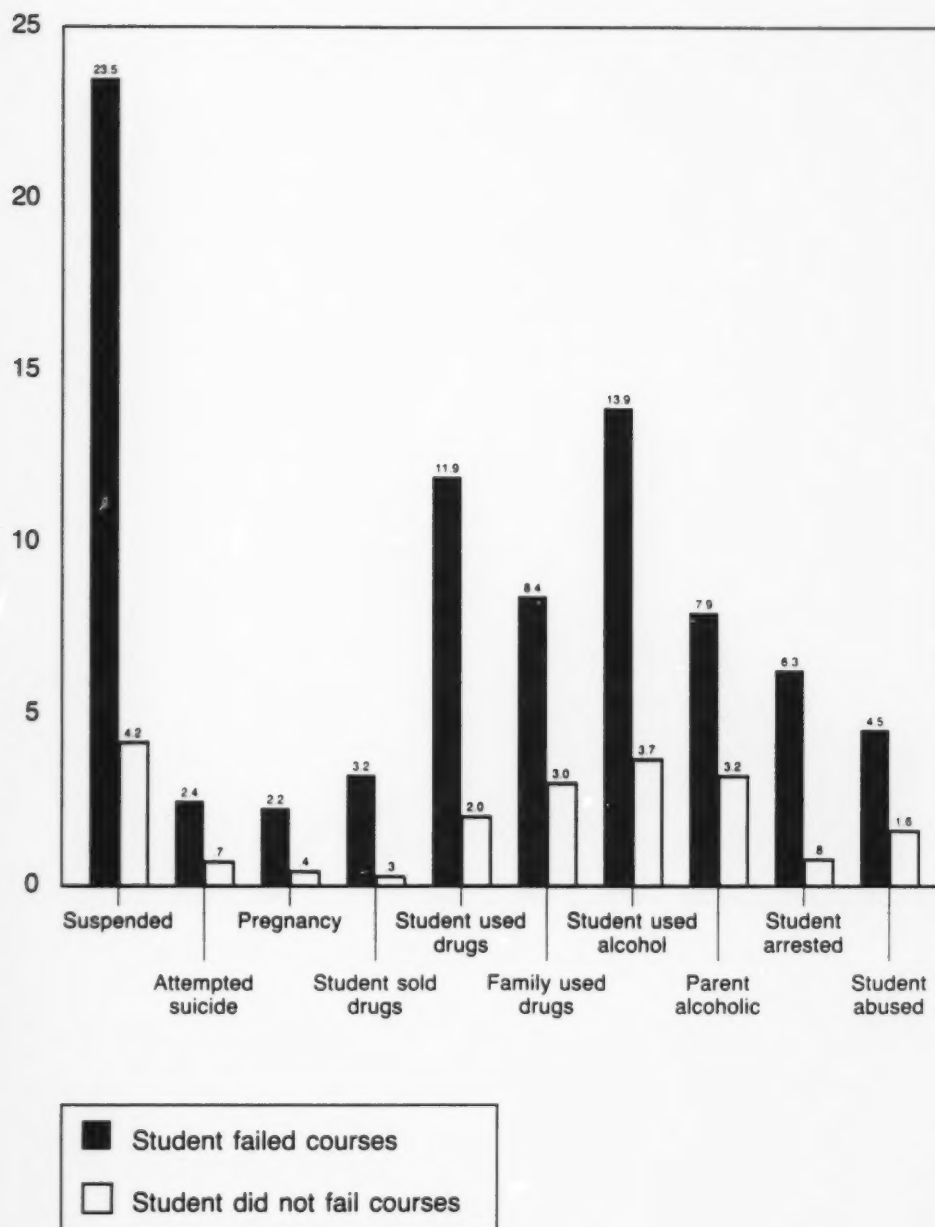


Chart 13

Student overage (N = 3,517) vs. student not overage (N = 18,189)
 Compared on personal pain risk items (percent)

(Data from table 22)

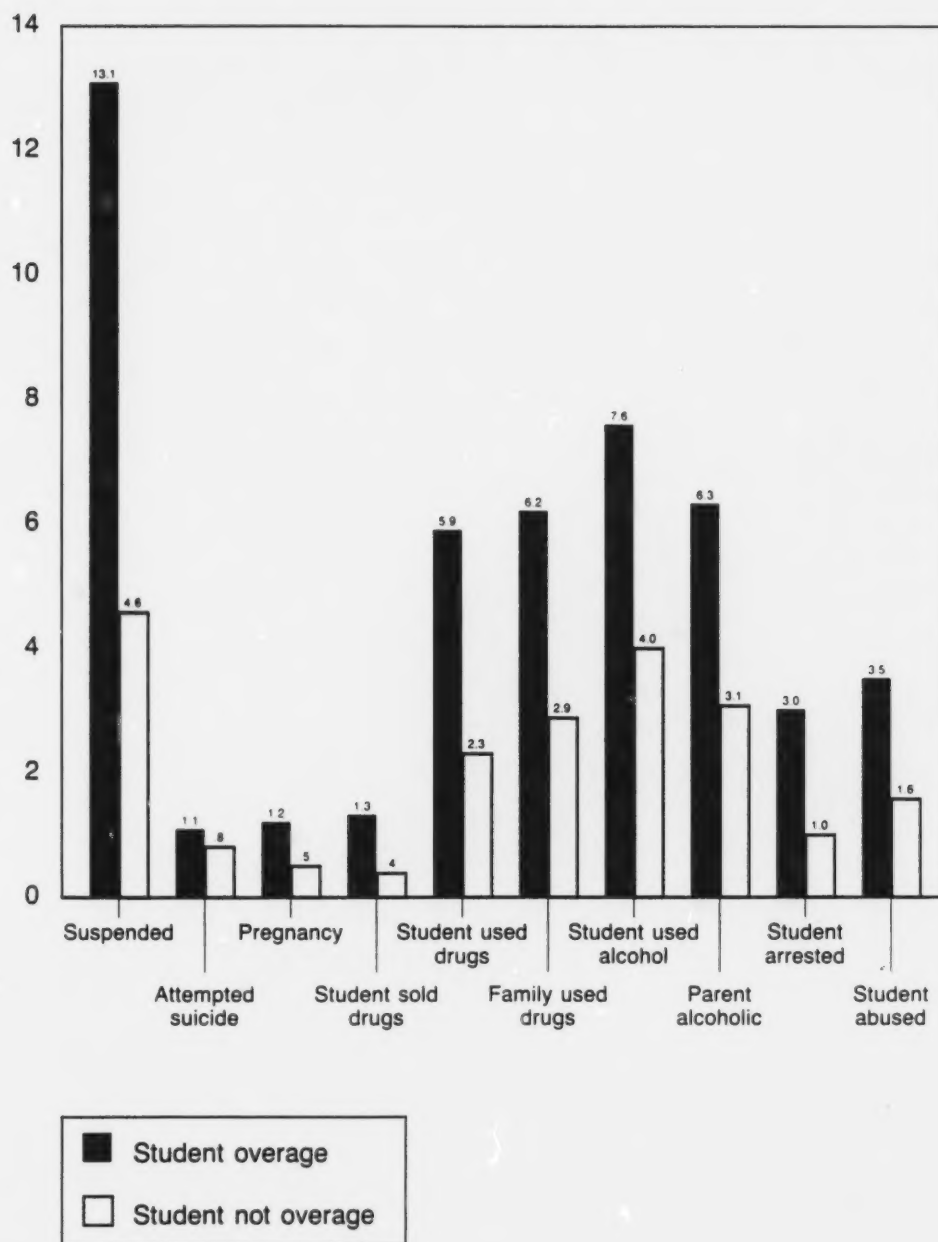


Chart 14

Student retained (N = 3,100) vs. student not retained (N = 18,606)
 Compared on personal pain risk items (percent)

(Data from table 23)

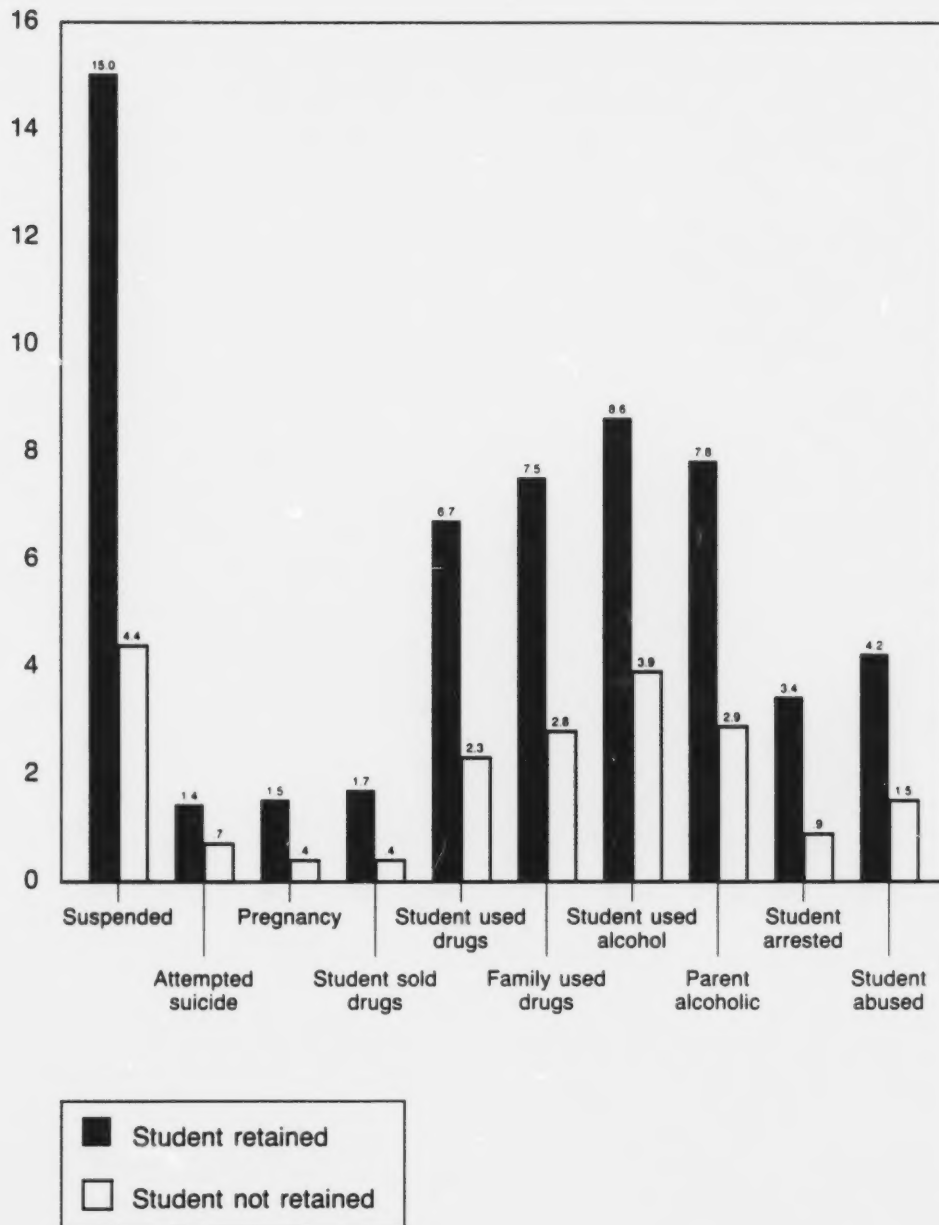


Chart 15

Excessive absences (N = 1,497) vs. no excessive absences (N = 20,209)
 Compared on personal pain risk items (percent)

(Data from table 24)

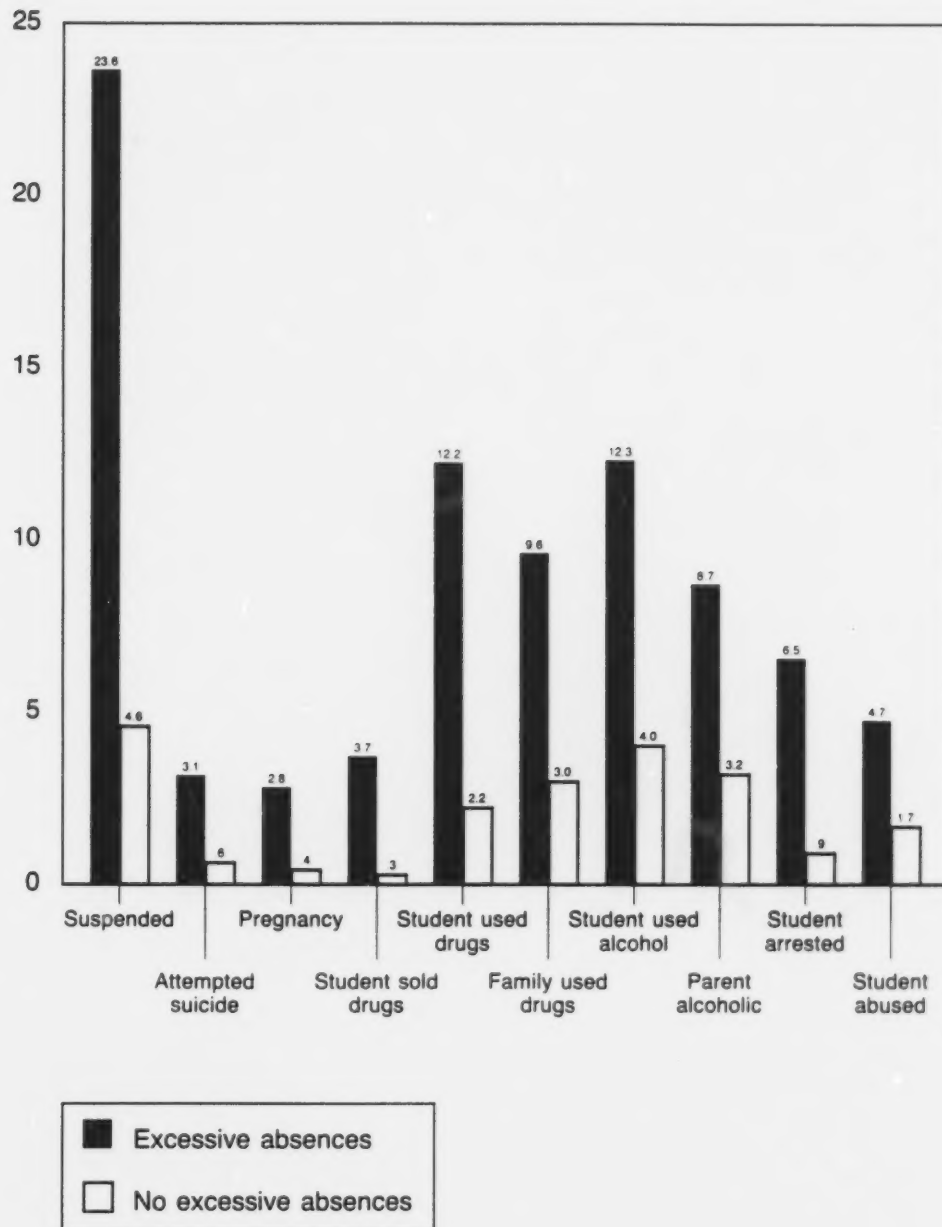


Chart 16

Low self-esteem (N = 2,686) vs. not low self-esteem (N = 19,020)
 Compared on personal pain risk items (percent)

(Data from table 25)

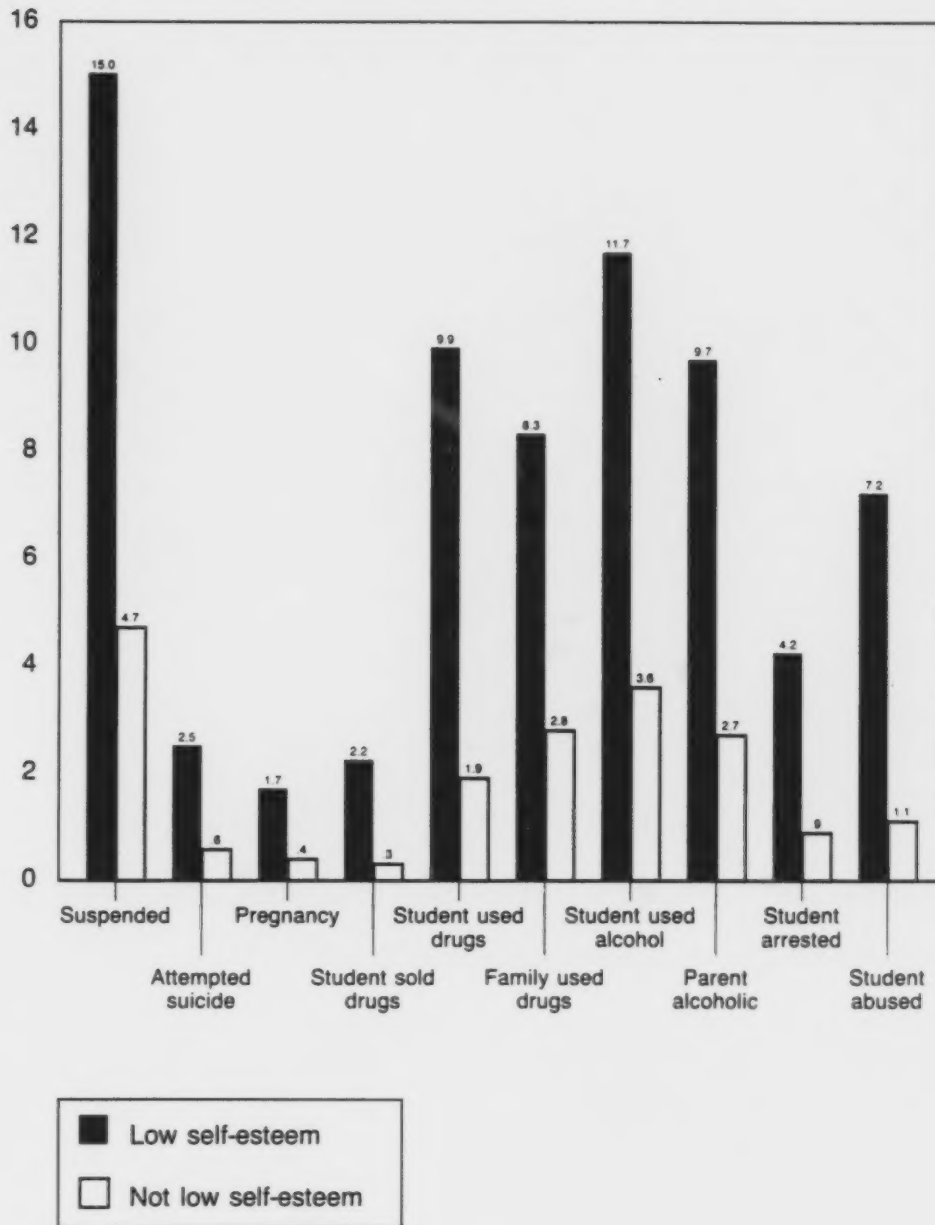


Chart 17

Referred to special education (N = 2,128) vs. not referred to special education (N = 19,578)
 Compared on personal pain risk items (percent)

(Data from table 26)

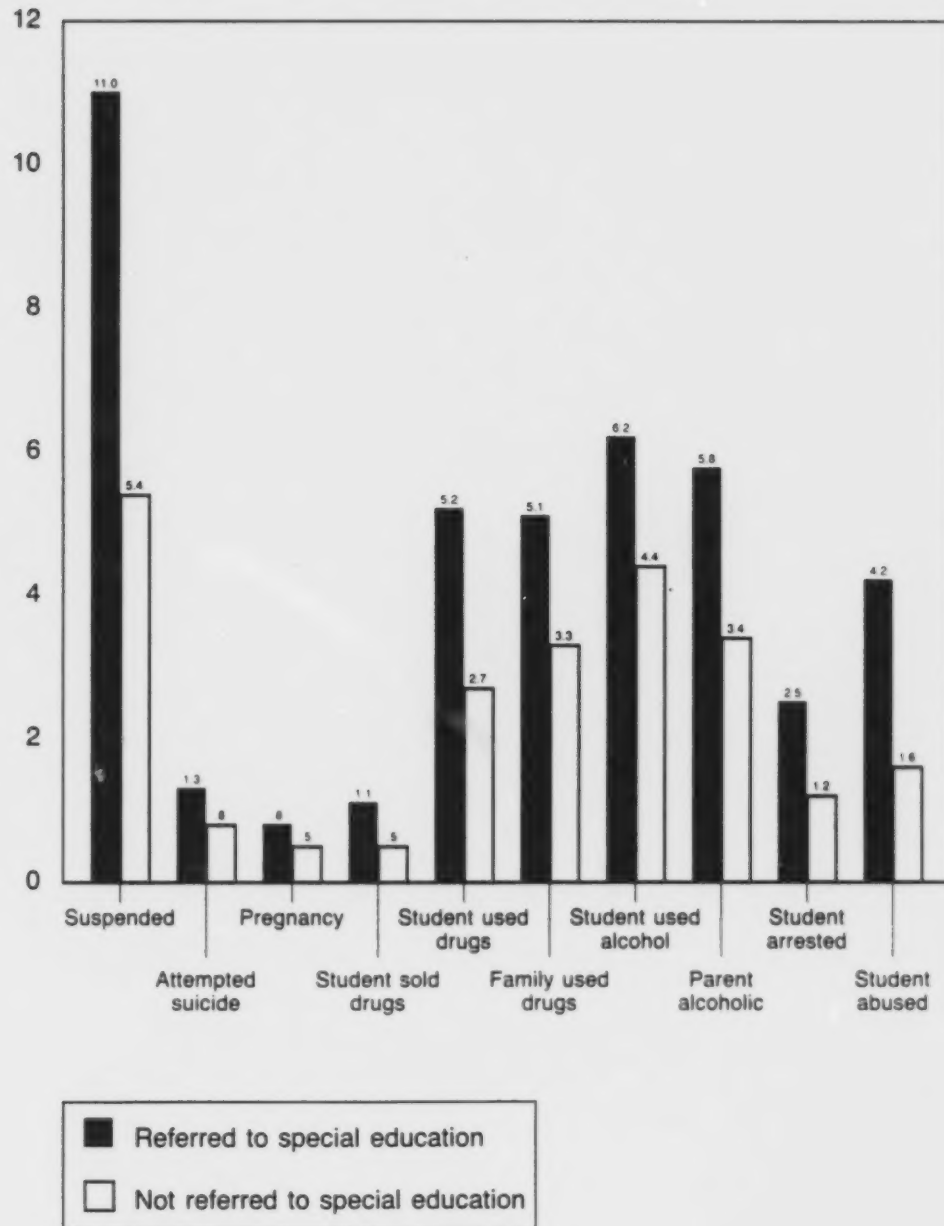


Chart 18

Low reading scores (N = 2,037) vs. not low reading scores (N = 19,669)
 Compared on personal pain risk items (percent)

(Data from table 27)

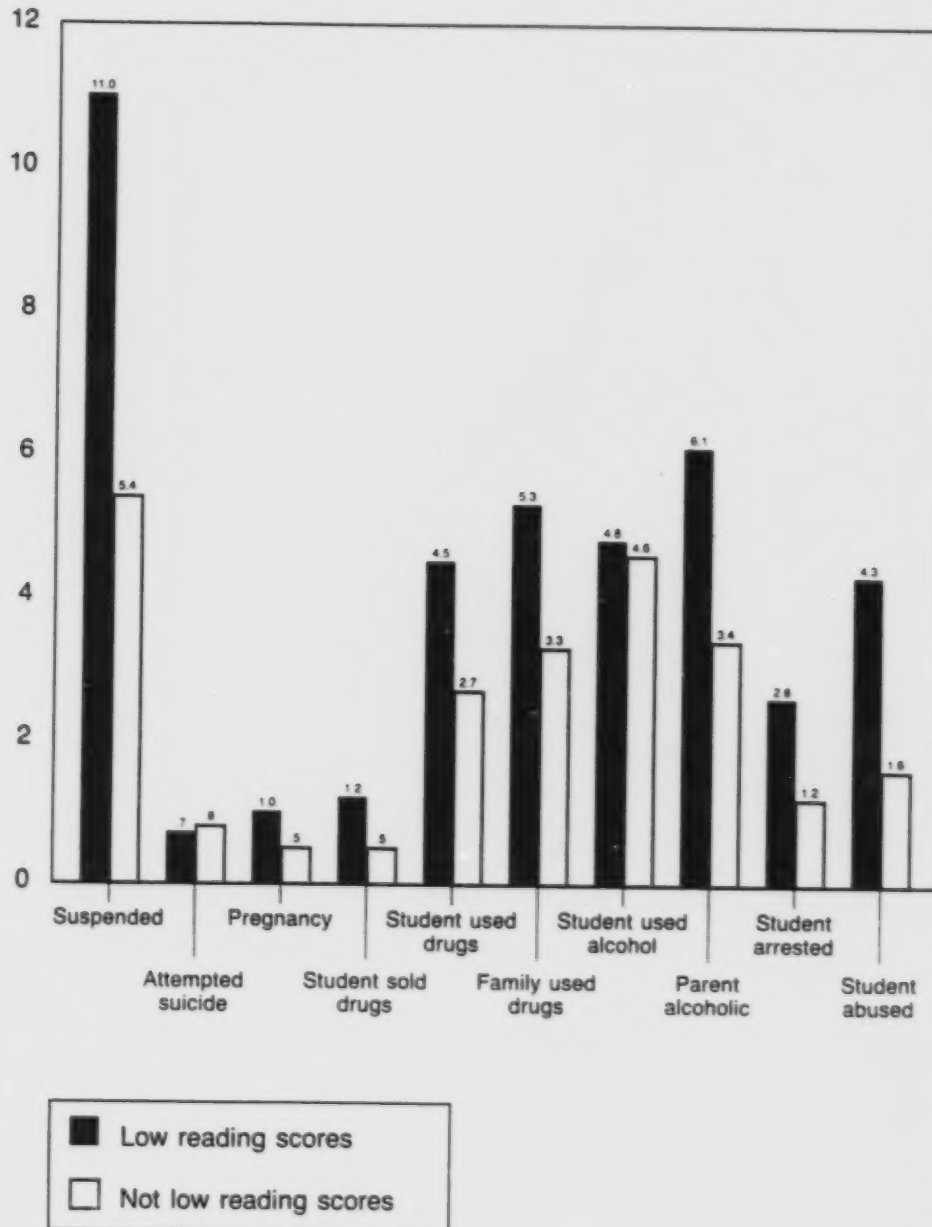


Chart 19

Parent sick in last year (N = 878) vs. parent not sick in last year (N = 20,828)
Compared on personal pain risk items (percent)

(Data from table 28)

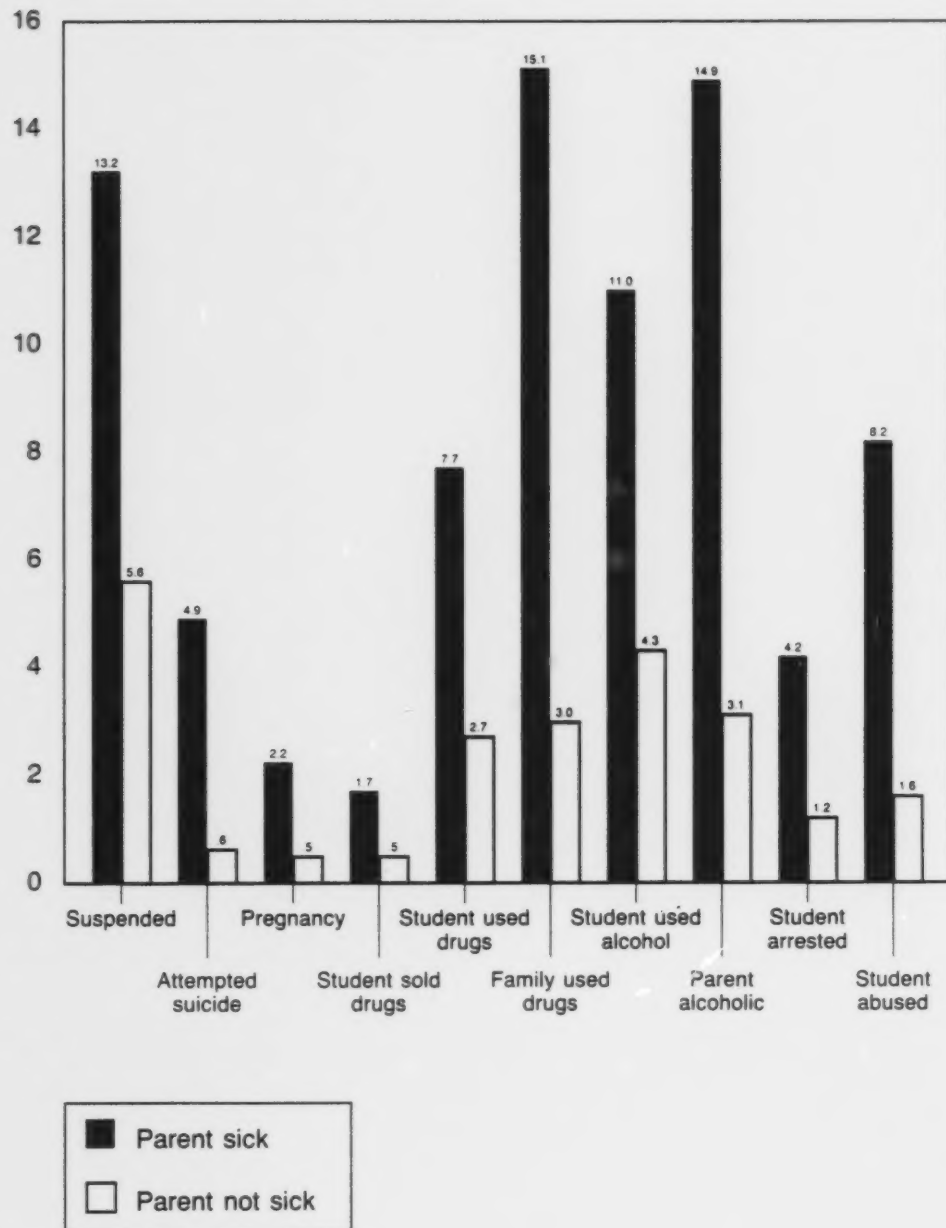


Chart 20

Parent died last year (N = 198) vs. parent did not die last year (N = 21,508)
 Compared on personal pain risk items (percent)

(Data from table 29)

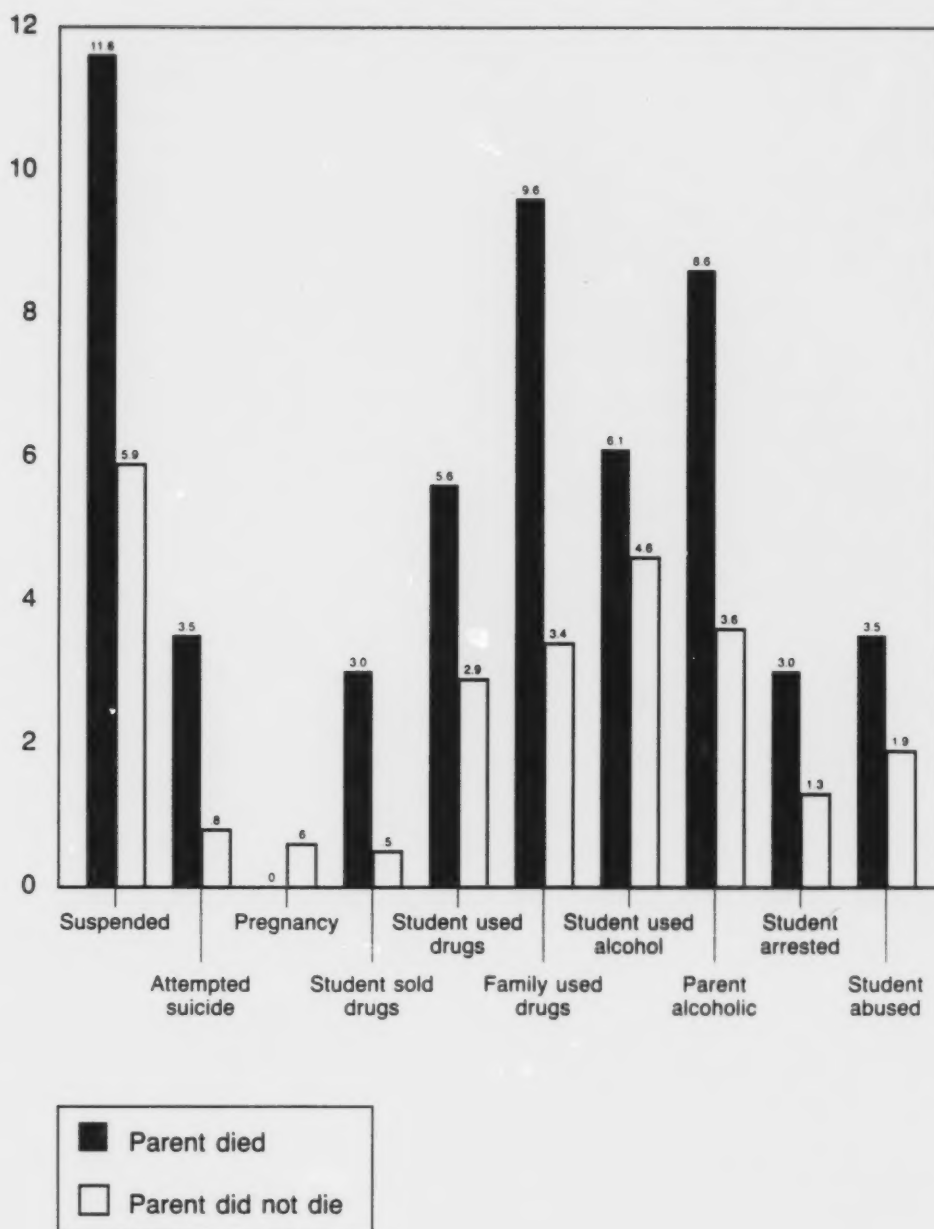


Chart 21

Parent lost job (N = 869) vs. parent did not lose job (N = 20,837)
 Compared on personal pain risk items (percent)

(Data from table 30)

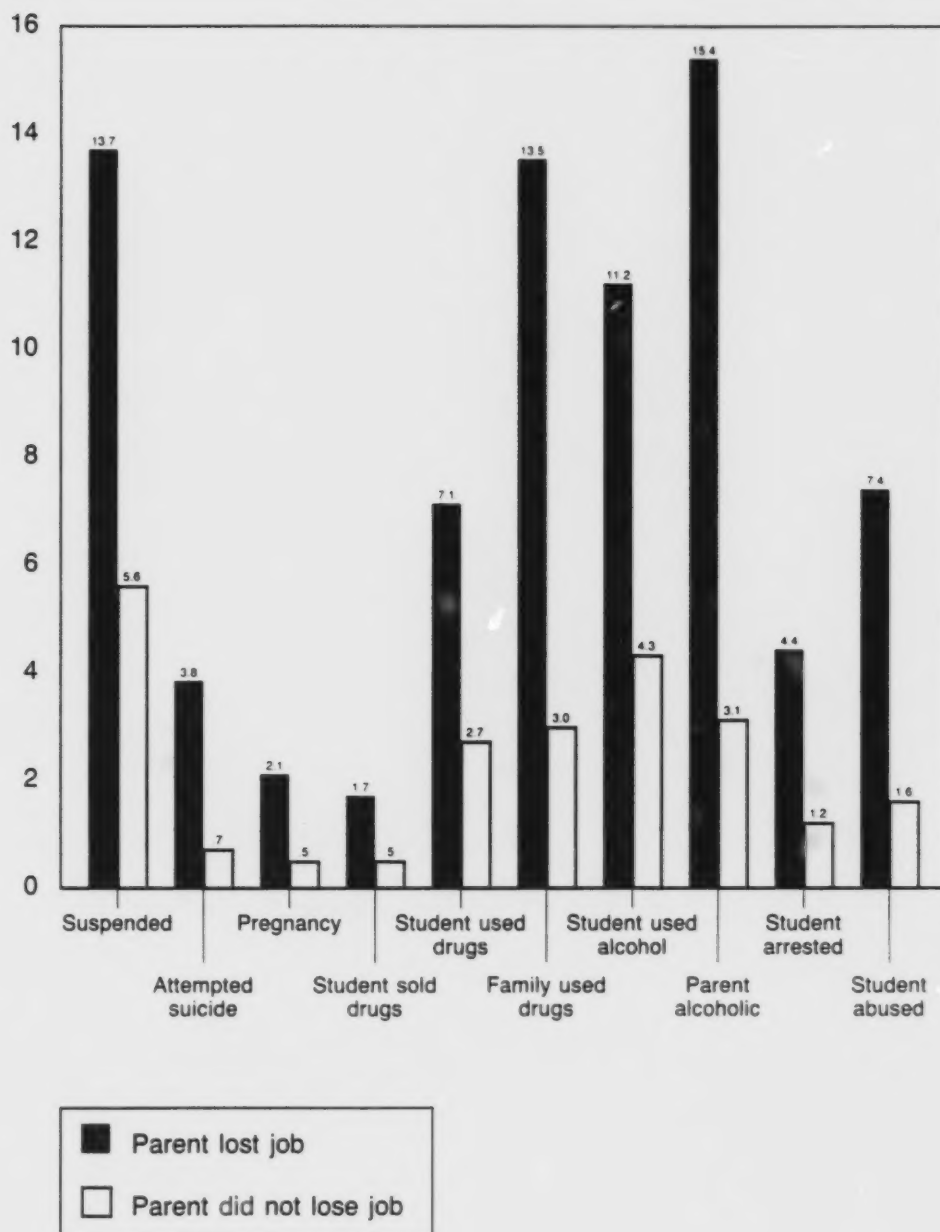


Chart 22

Friend died last year (N = 998) vs. friend did not die last year (N = 20,708)
 Compared on personal pain risk items (percent)

(Data from table 31)

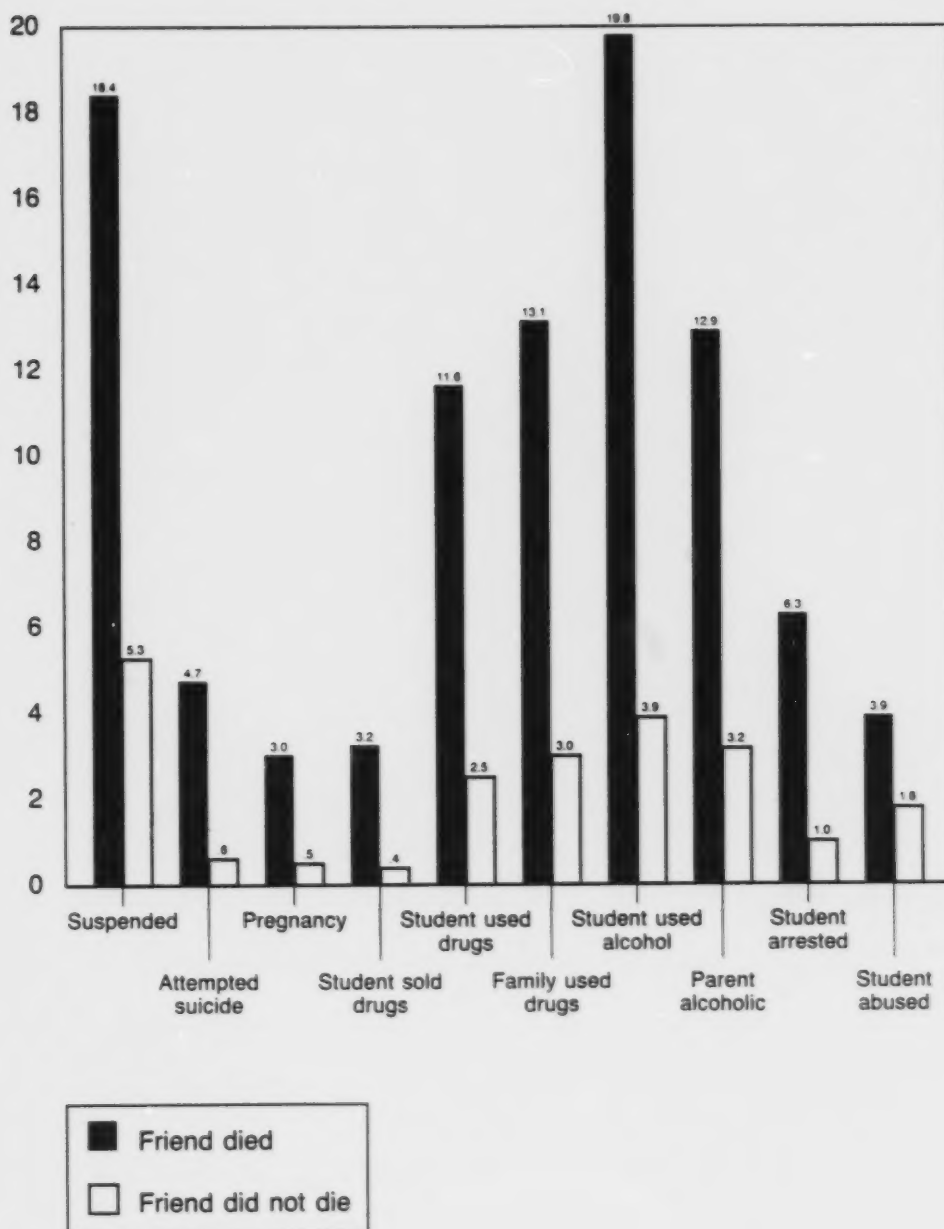


Chart 23

Student seriously ill in last year (N = 697) vs. student not ill (N = 21,009)
 Compared on personal pain risk items (percent)

(Data from table 32)

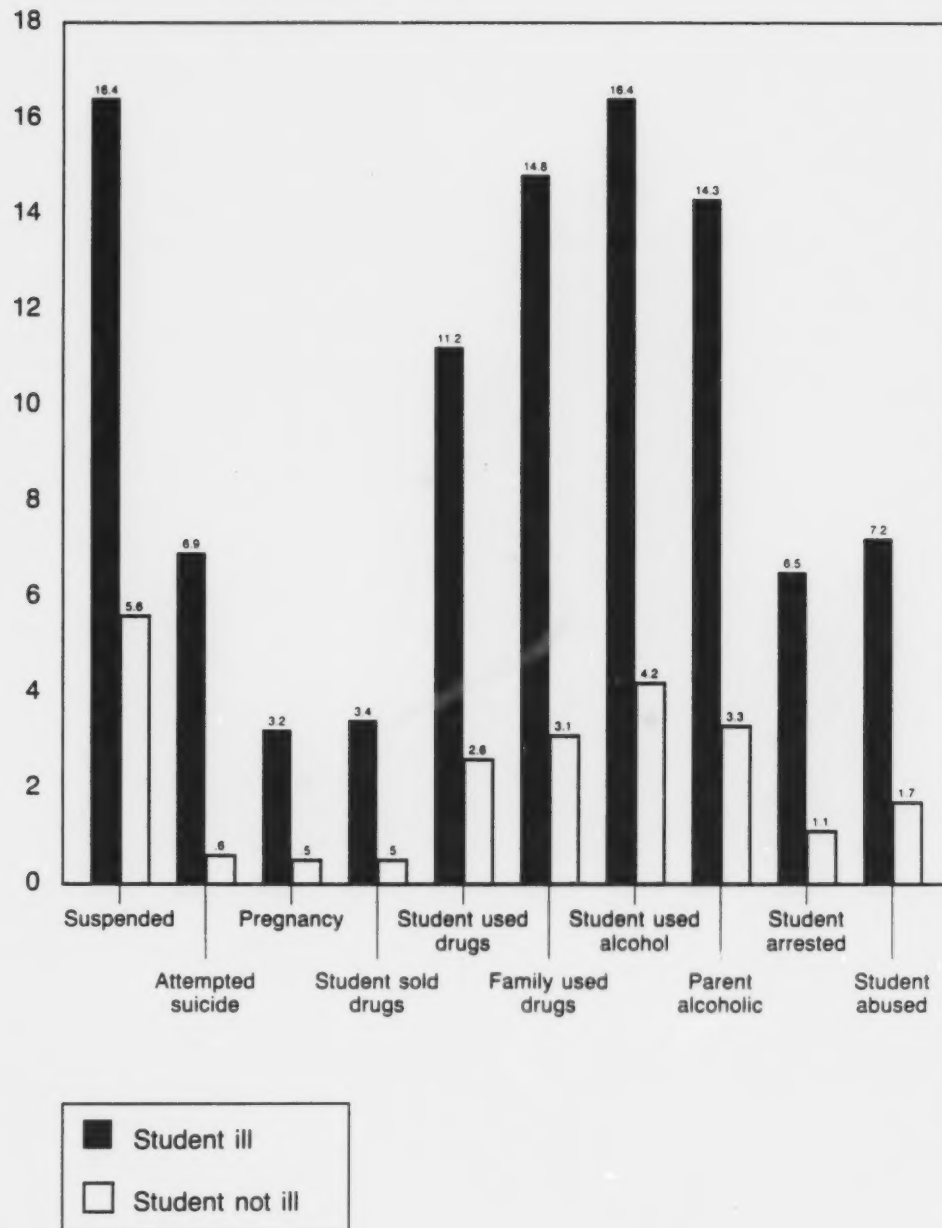


Chart 24

Sibling died in last year (N = 118) vs. sibling did not die (N = 21,706)
 Compared on personal pain risk items (percent)

(Data from table 33)

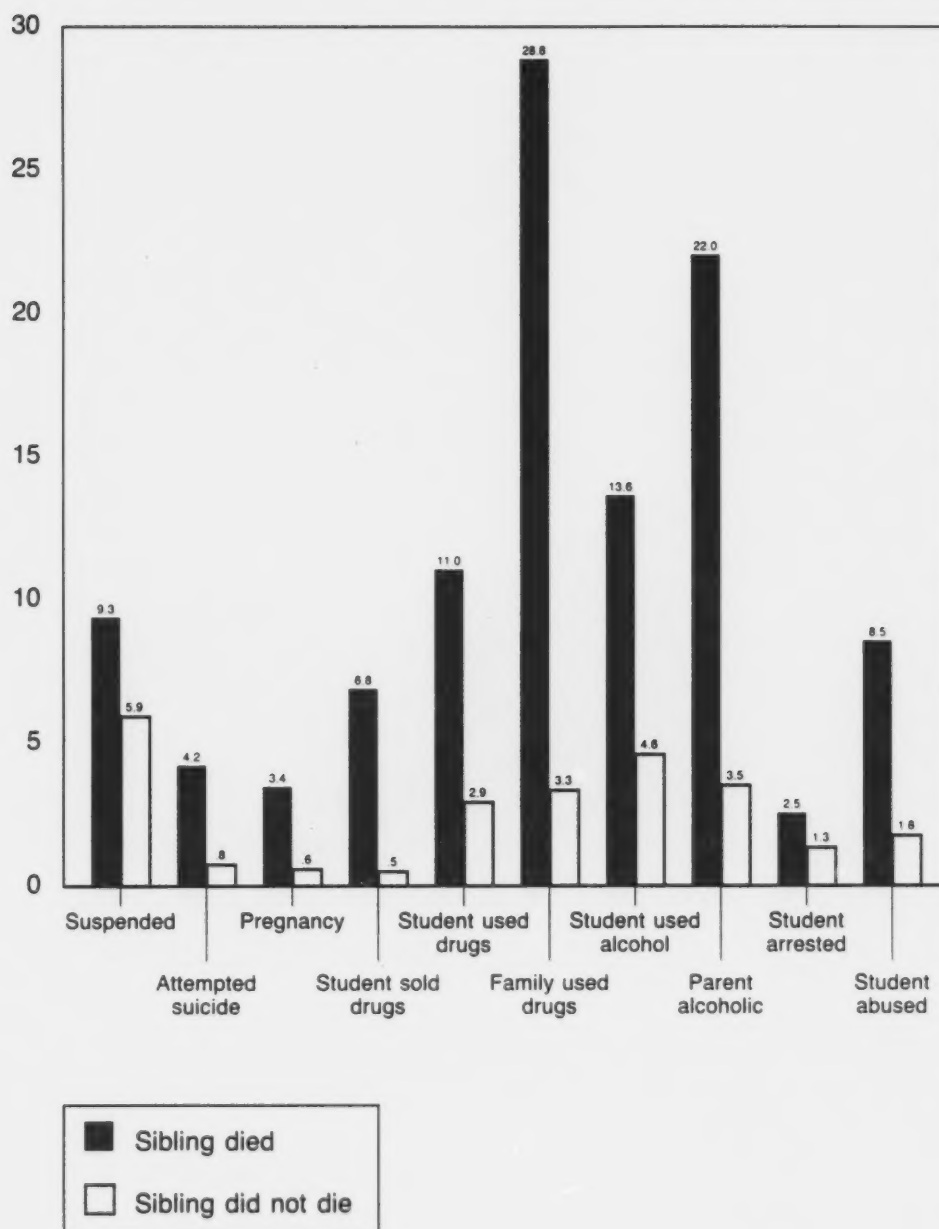


Chart 25

Father has low-level job (N = 3,659) vs. father does not have low-level job (N = 18,047)
 Compared on personal pain risk items (percent)

(Data from table 34)

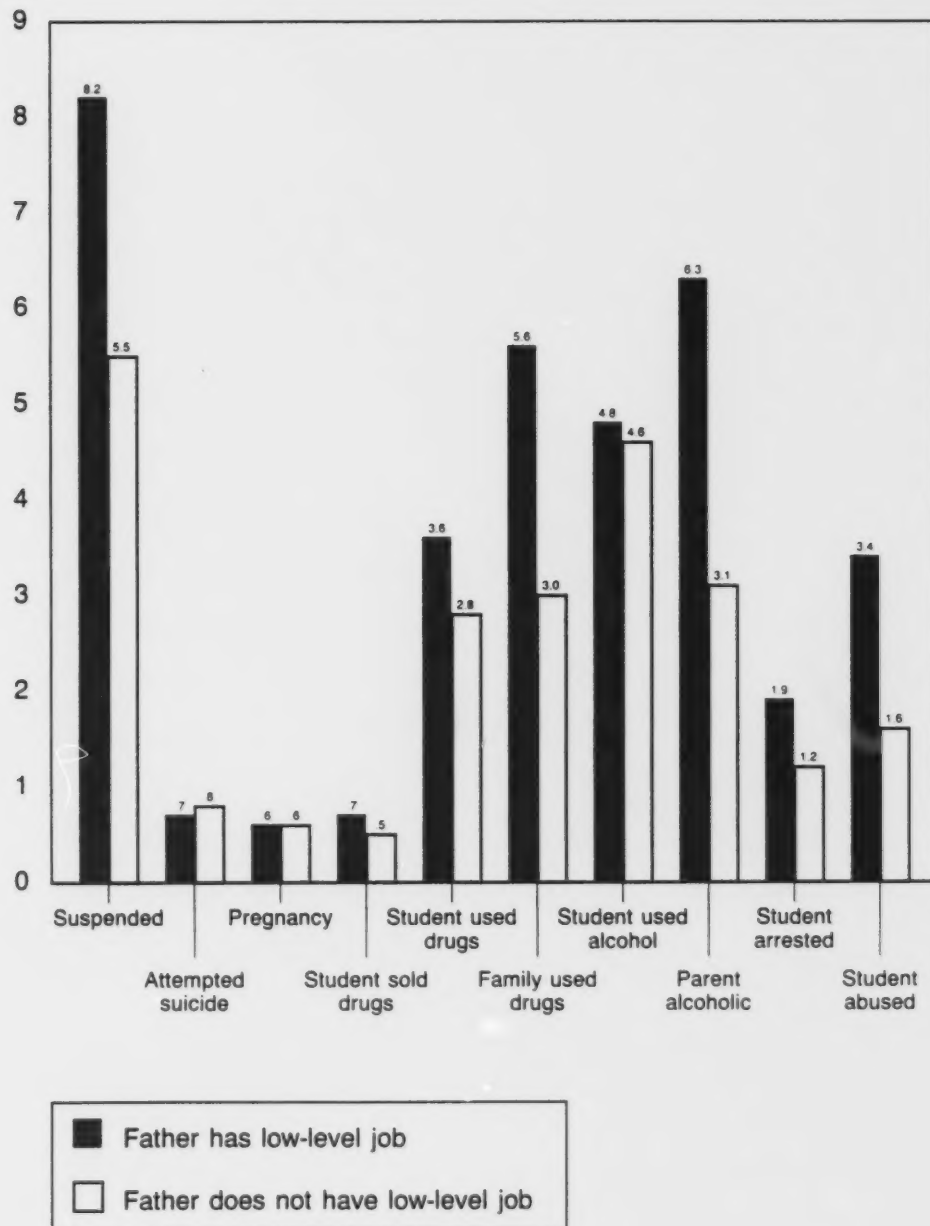


Chart 26

Father did not graduate (N = 1,680) vs. father did graduate (N = 20,026)
 Compared on personal pain risk items (percent)

(Data from table 35)

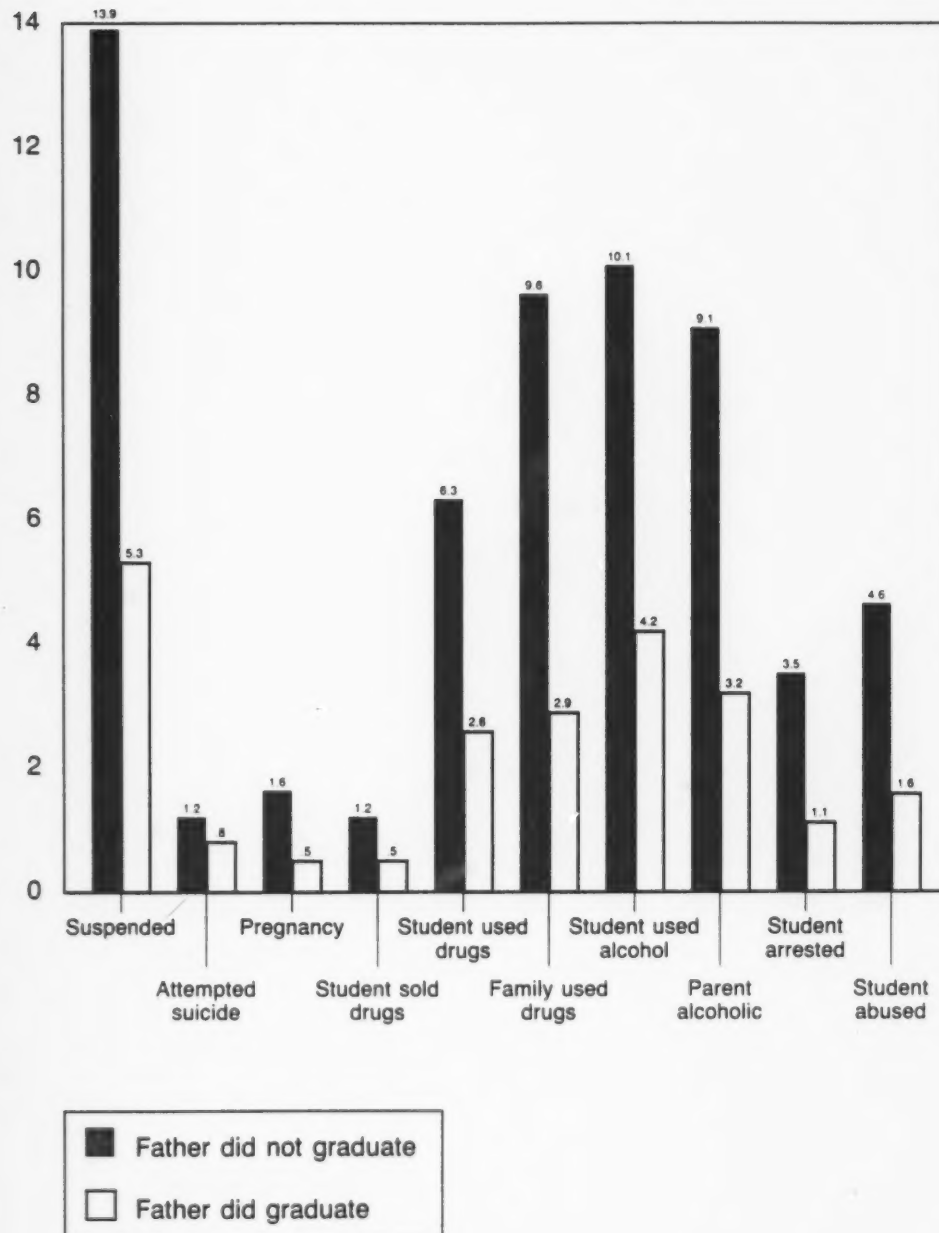


Chart 27

Mother has low-level job (N = 4,260) vs. mother does not have low-level job (N = 17,446)
 Compared on personal pain risk items (percent)

(Data from table 36)

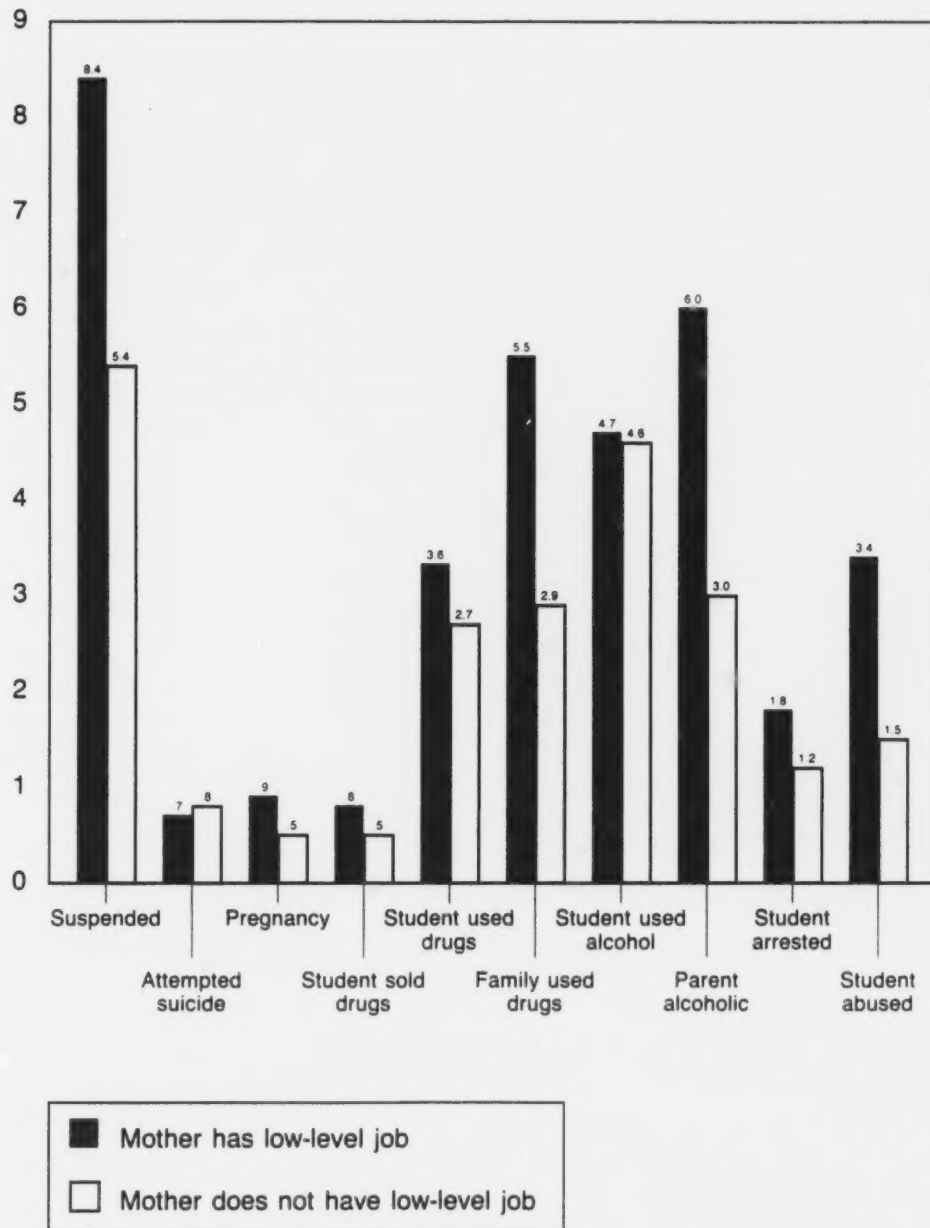


Chart 28

Mother did not graduate (N = 1,809) vs. mother did graduate (N = 19,897)
 Compared on personal pain risk items (percent)

(Data from table 37)

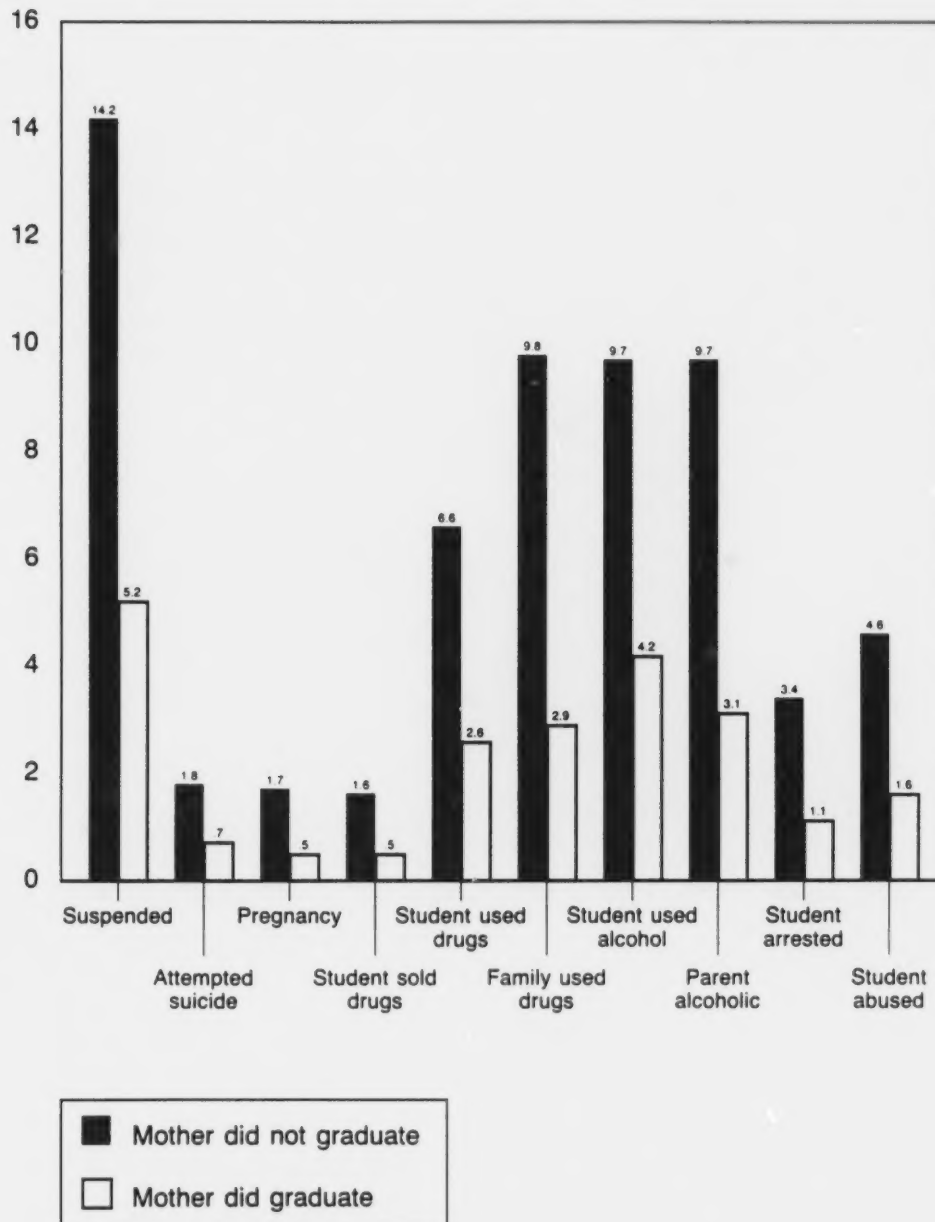


Chart 29

Parents' attitude negative (N = 1,089) vs. parents' attitude not negative (N = 20,617)
 Compared on personal pain risk items (percent)

(Data from table 38)

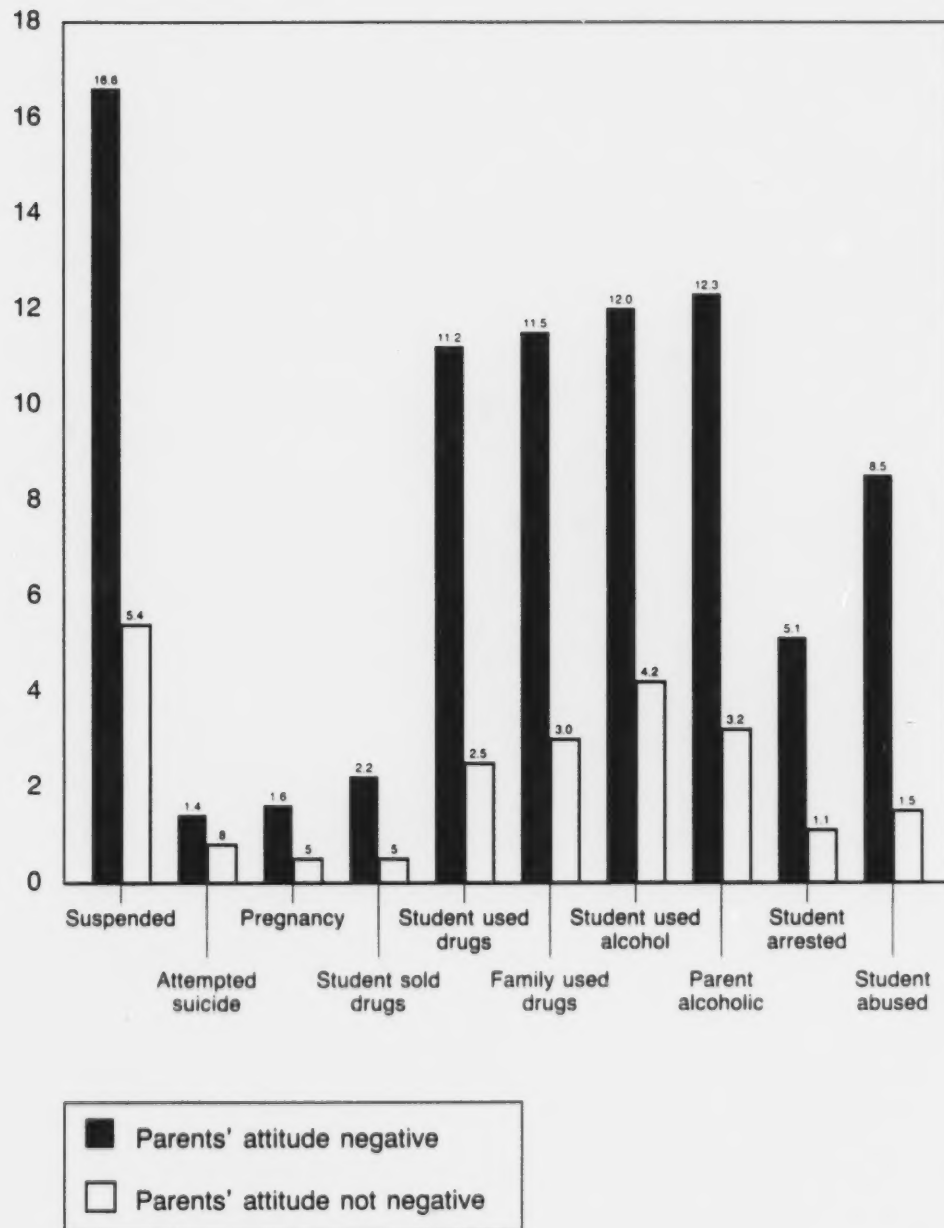


Chart 30

No English spoken (N = 1,067) vs. English spoken (N = 20,639)
 Compared on personal pain risk items (percent)

(Data from table 39)

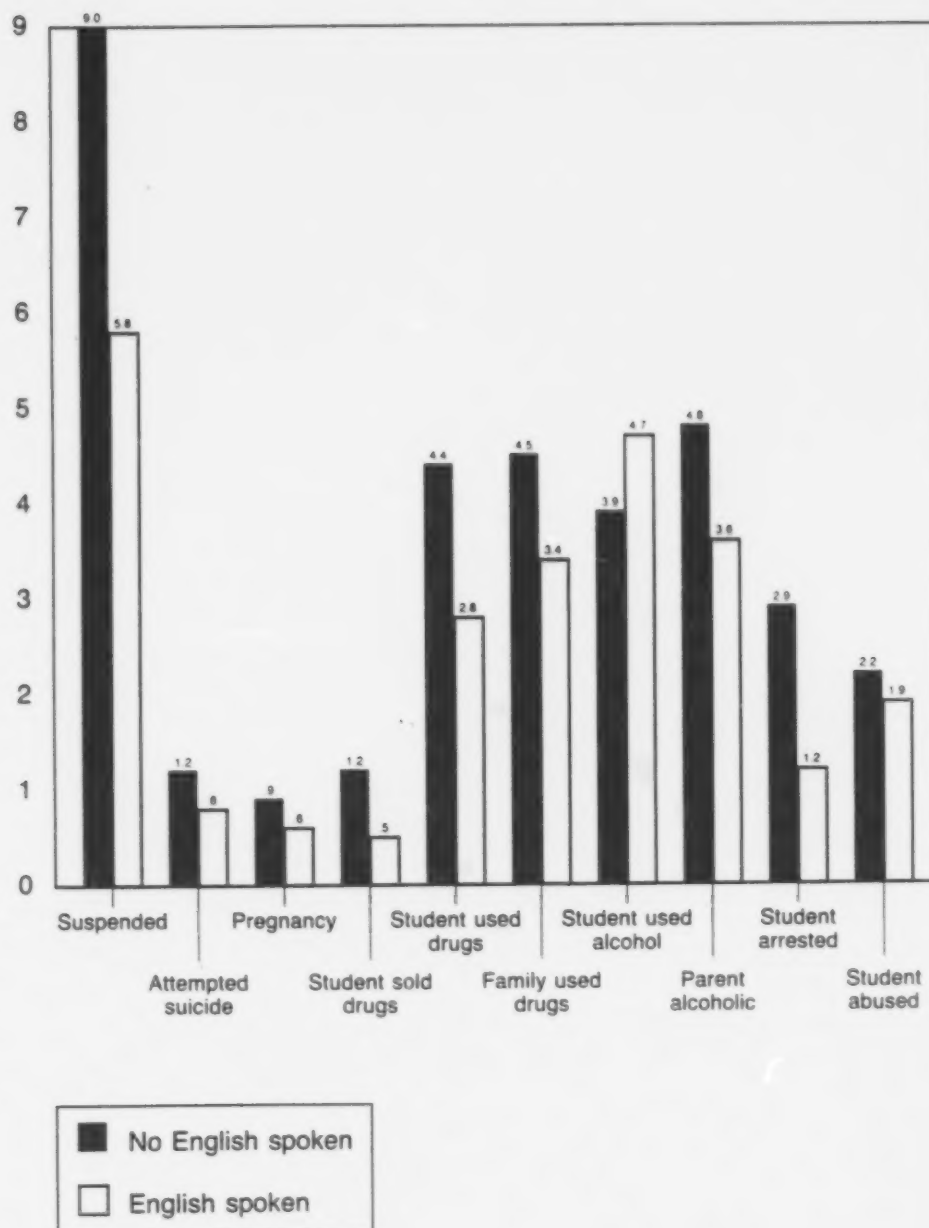


Chart 31

From broken home (N = 7,505) vs. real parents (N = 14,201)
 Compared on personal pain risk items (percent)

(Data from table 40)

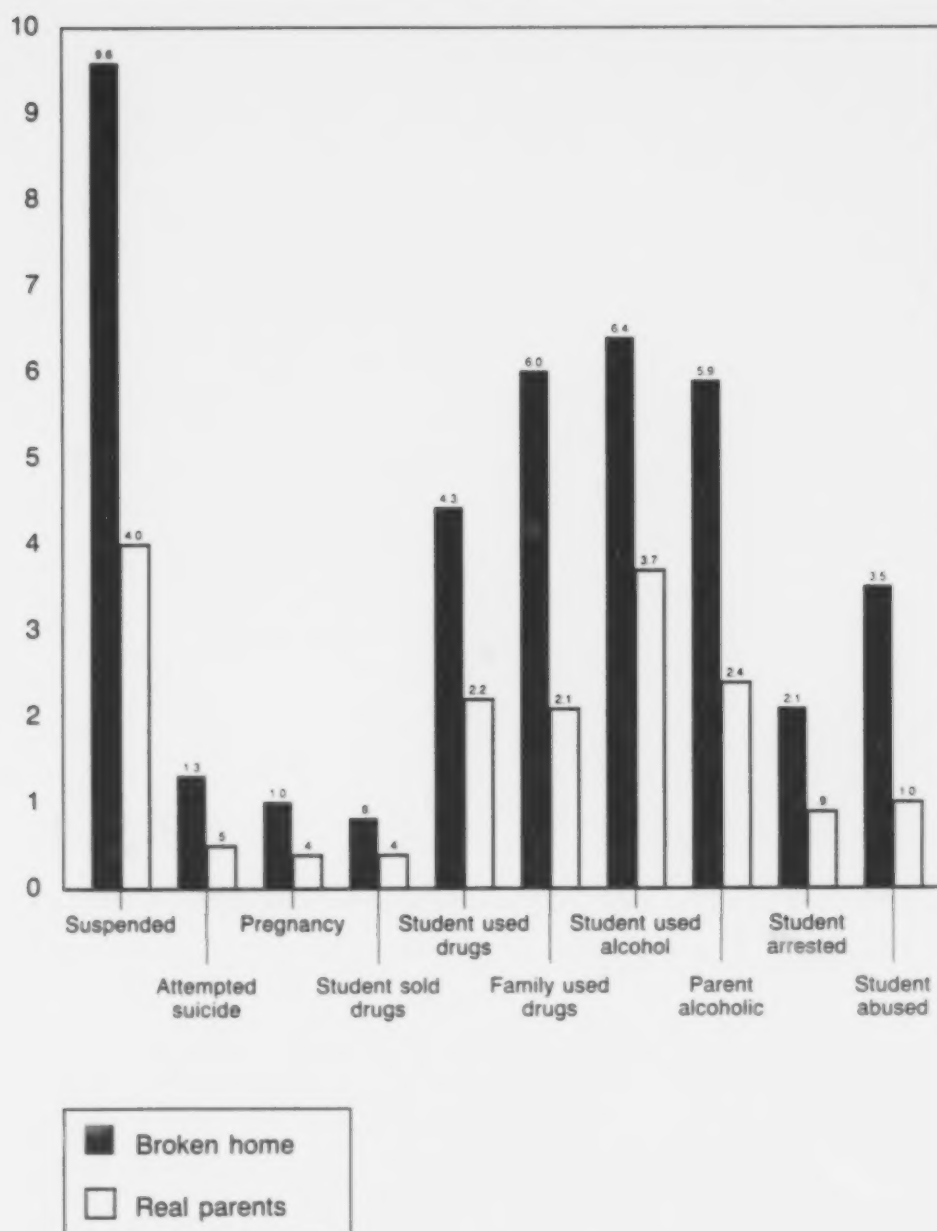


Chart 32

Moved frequently (N = 3,432) vs. did not move frequently (N = 18,274)
 Compared on personal pain risk items (percent)

(Data from table 41)

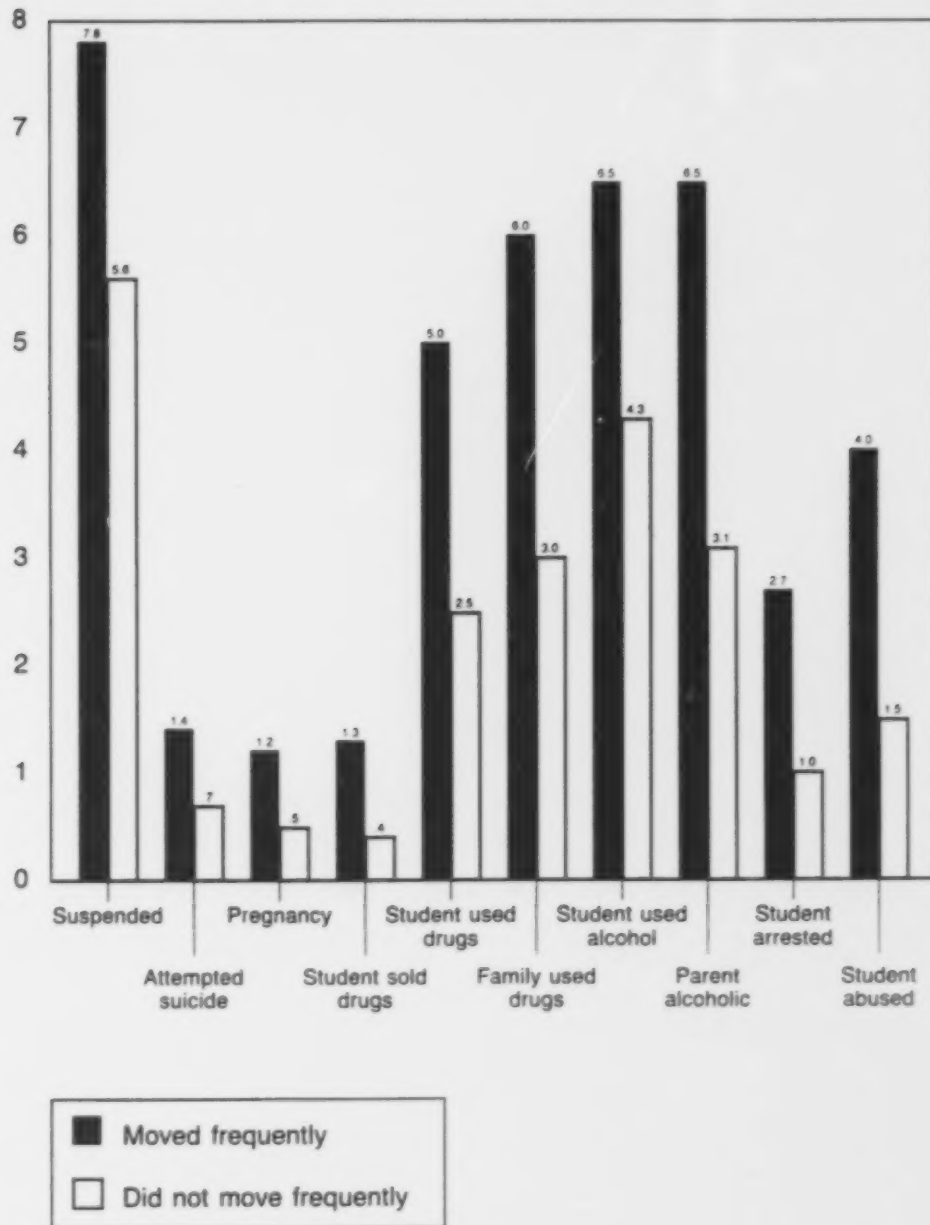


Chart 33

Changed schools frequently (N = 5,068) vs. did not change schools frequently (N = 16,638)
 Compared on personal pain risk items (percent)

(Data from table 42)

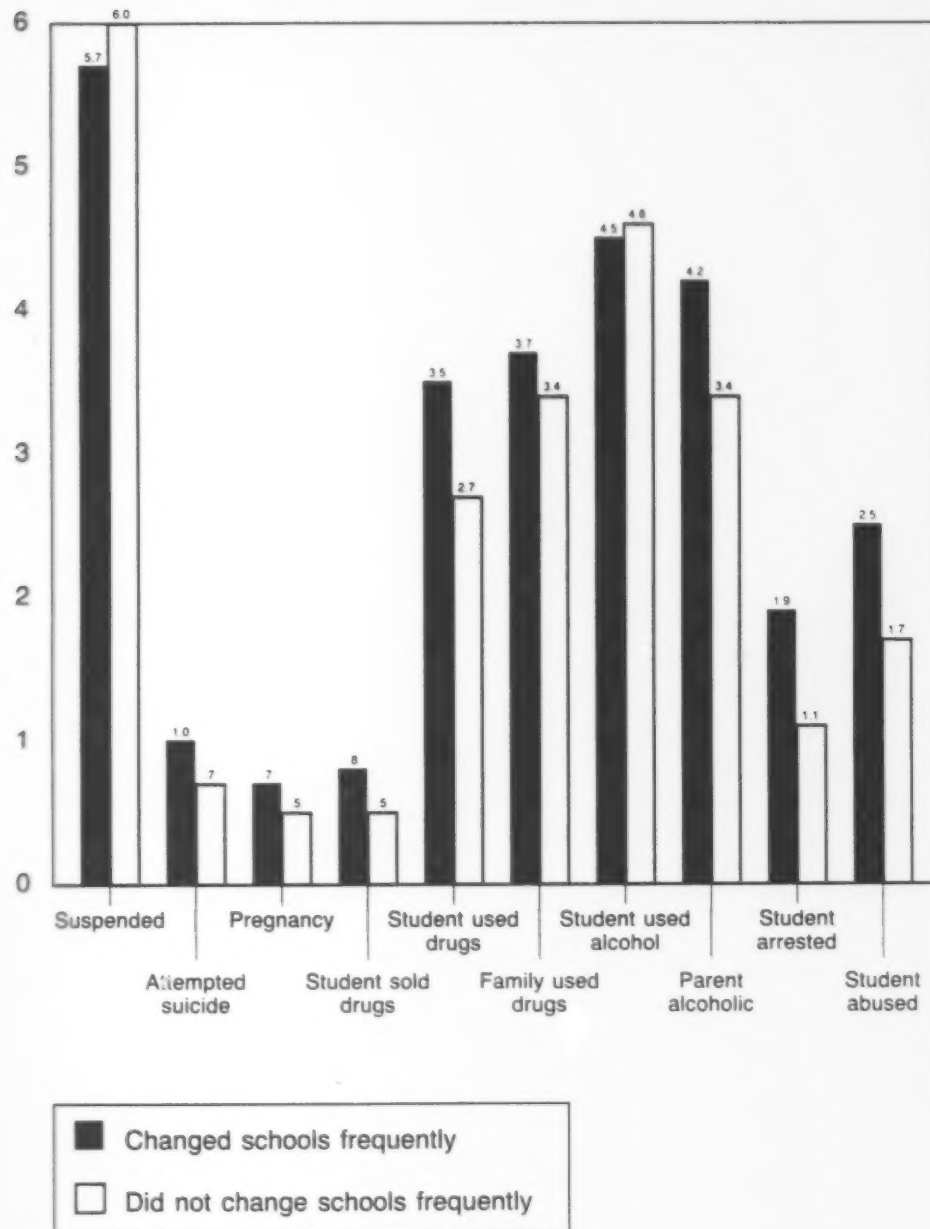


Chart 34

Parents divorced in last year (N = 1,484) vs. parents did not divorce in last year (N = 20,222)
 Compared on personal pain risk items (percent)

(Data from table 43)

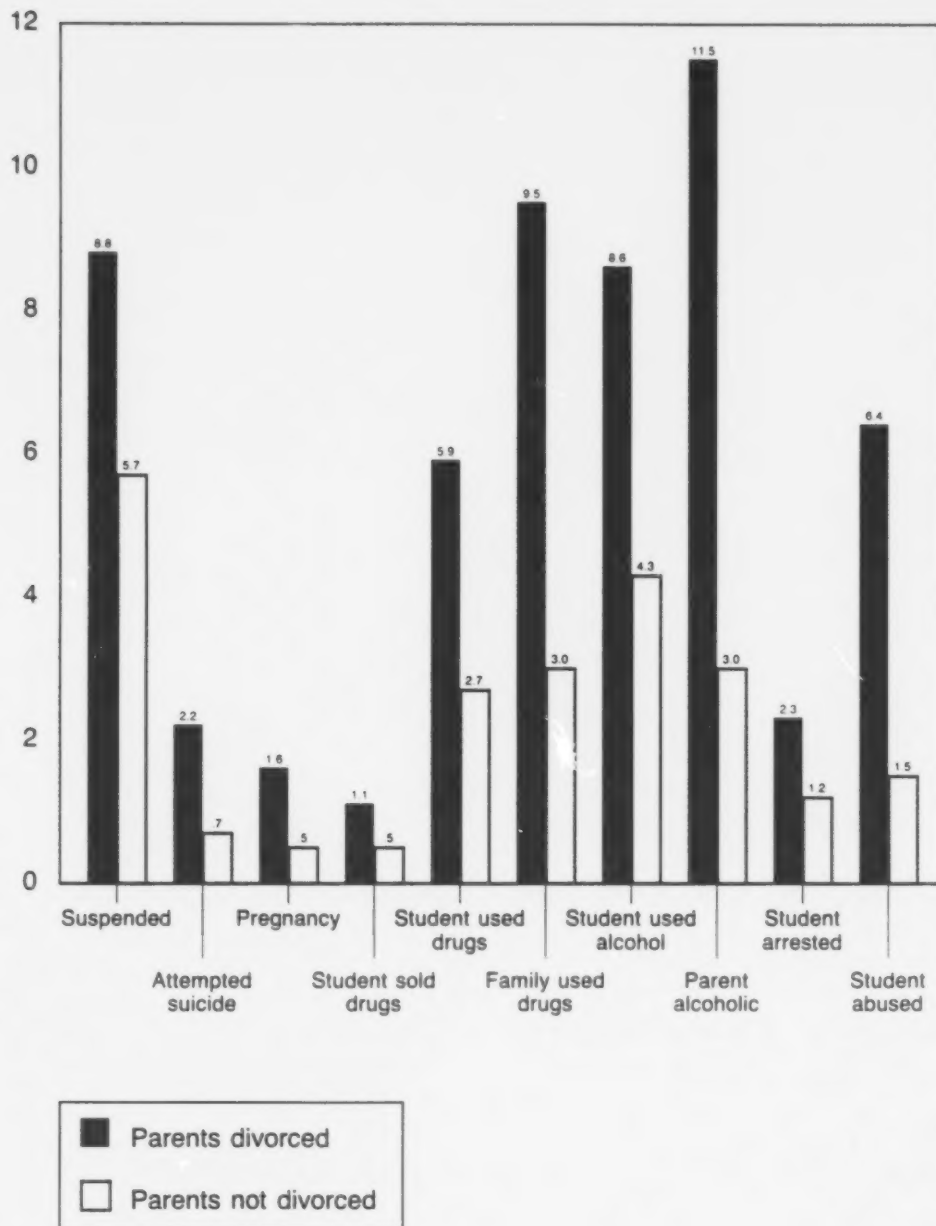


Chart 35

Suspended from school (N = 1,290) vs. nonsuspended (N = 20,416)
Compared on academic failure risk items (percent)

(Data from table 10)

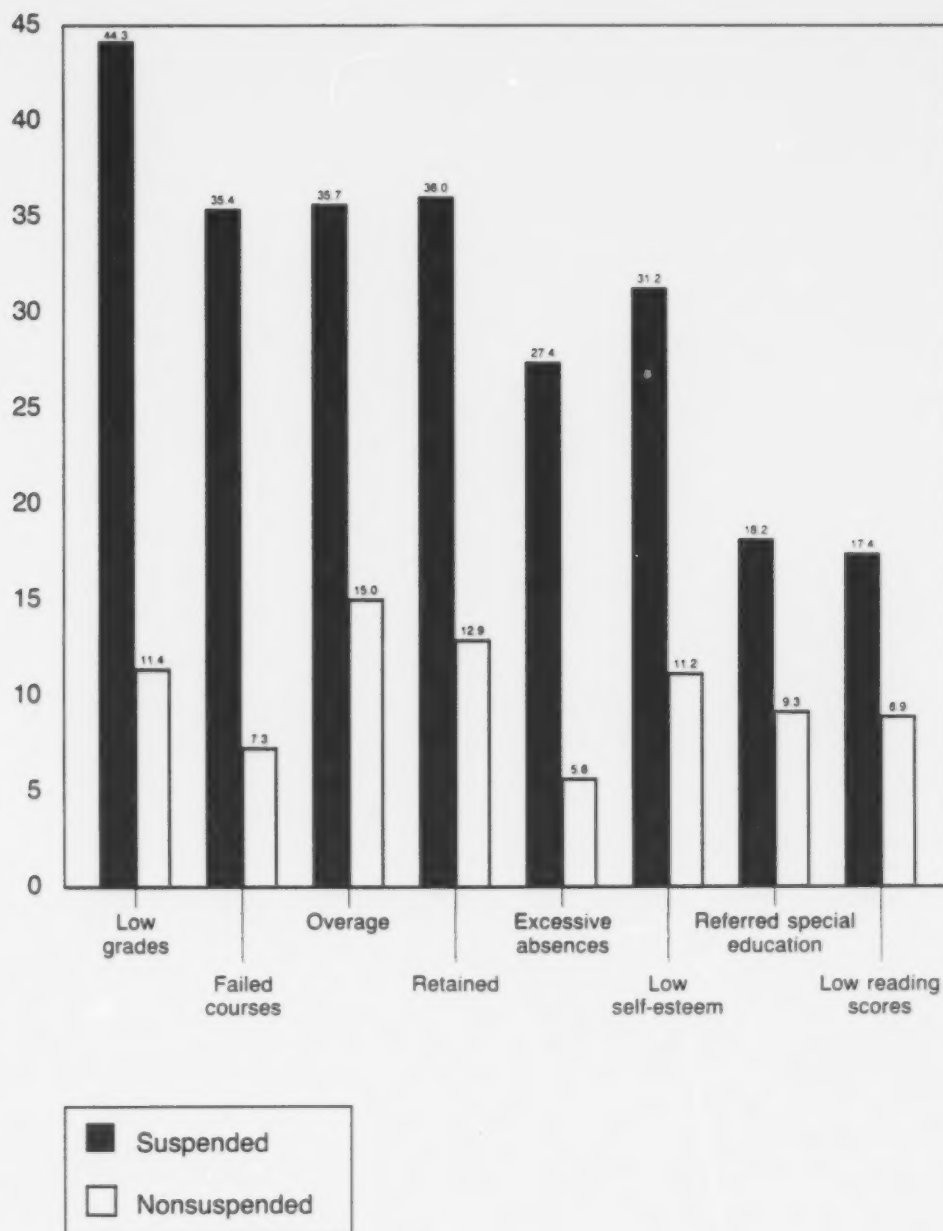


Chart 36

Attempted suicide (N = 176) vs. did not attempt suicide (N = 21,530)
Compared on academic failure risk items (percent)

(Data from table 11)

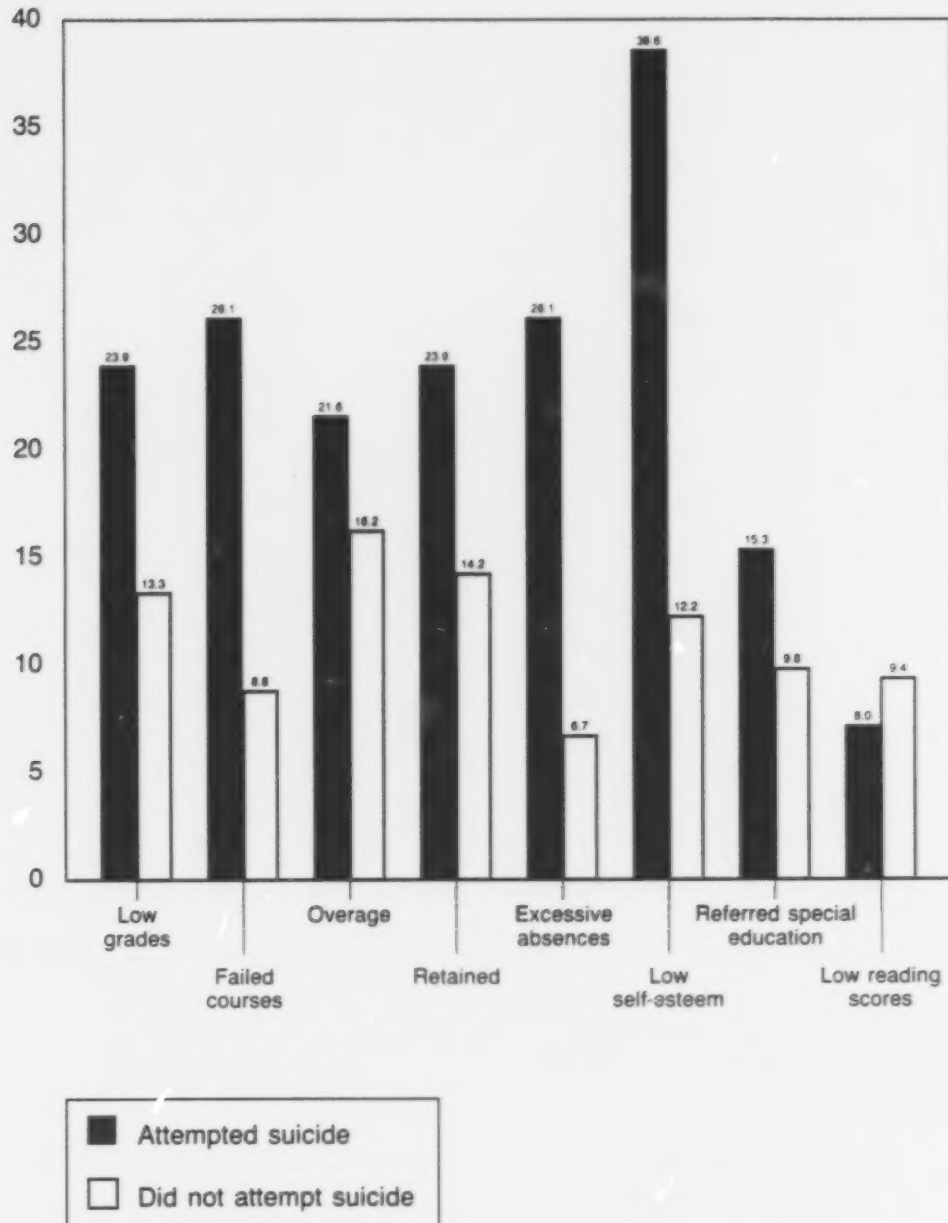


Chart 37

Involved in pregnancy (N = 124) vs. not involved in pregnancy (N = 21,582)
 Compared on academic failure risk items (percent)

(Data from table 12)

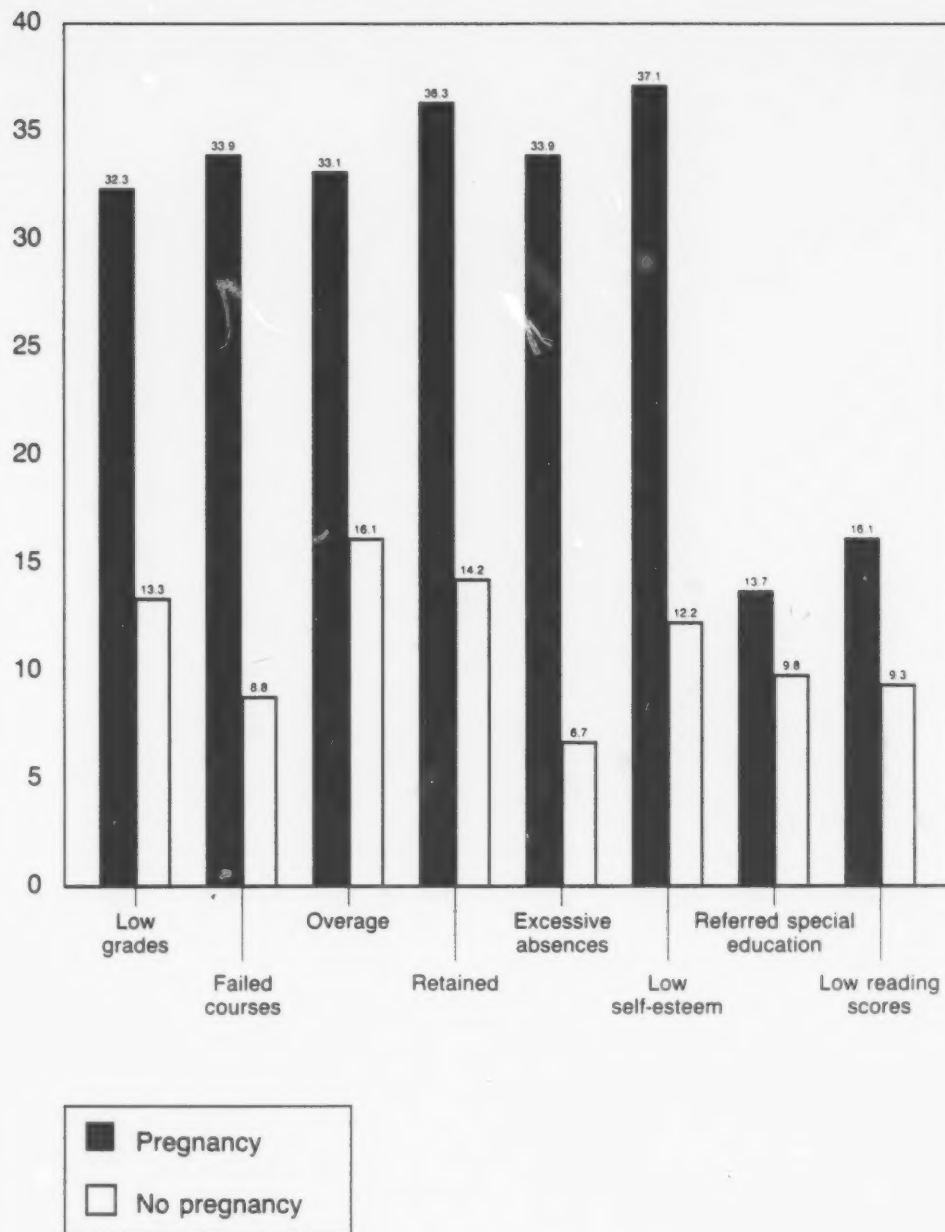


Chart 38

Student sold drugs (N = 122) vs. student did not sell drugs (N = 21,584)
Compared on academic failure risk items (percent)

(Data from table 13)

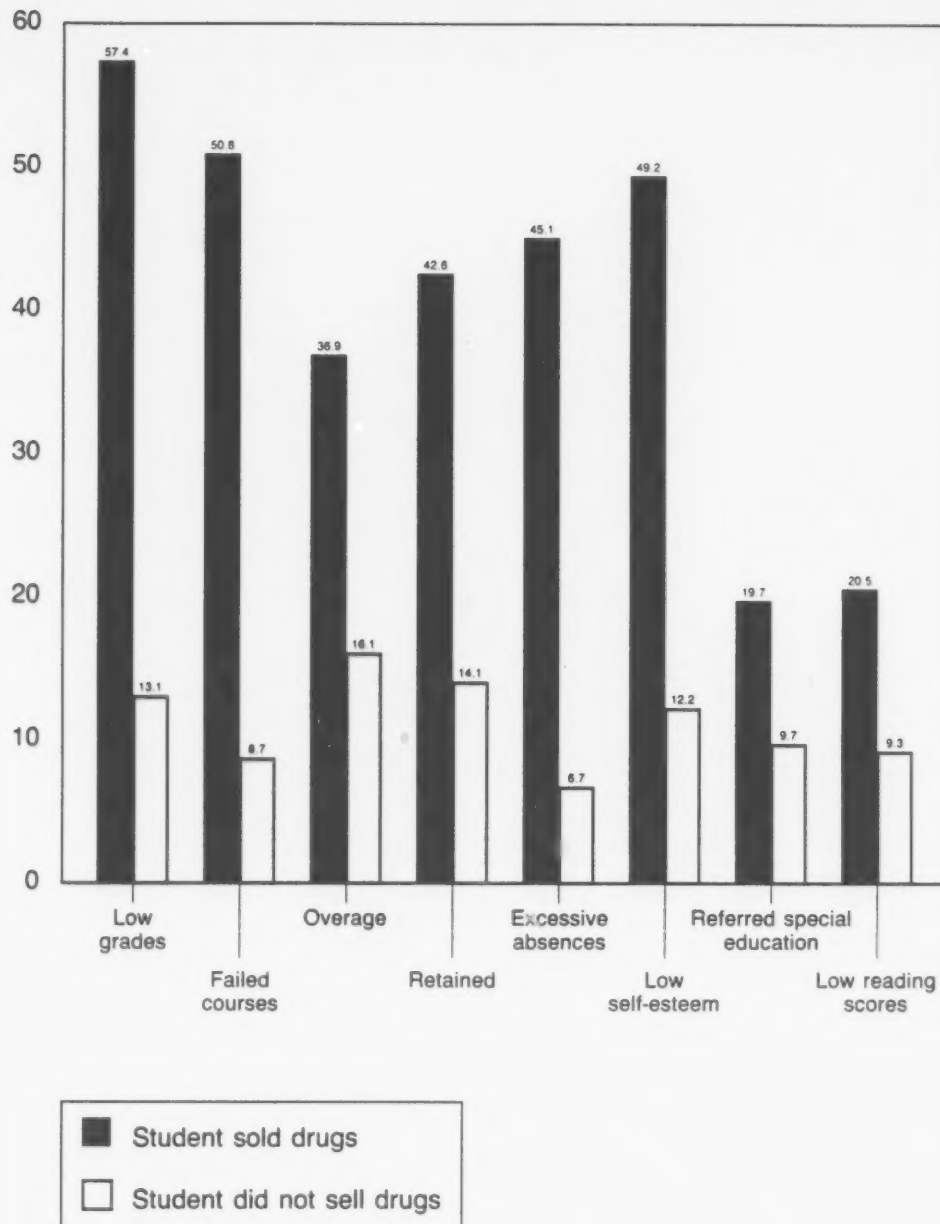


Chart 39

Student used drugs (N = 632) vs. student did not use drugs (N = 21,074)
Compared on academic failure risk items (percent)

(Data from table 14)

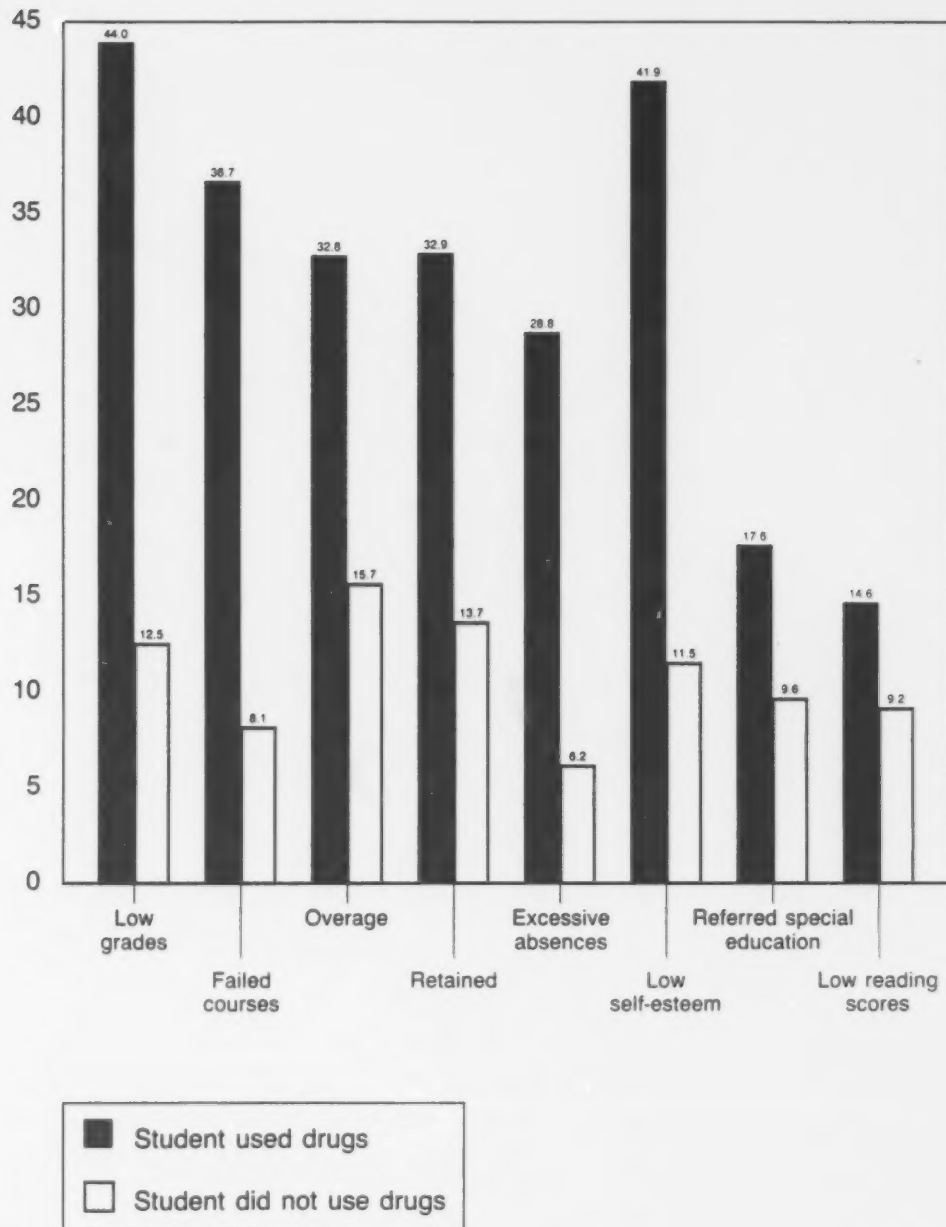


Chart 40

Family used drugs (N = 749) vs. family did not use drugs (N = 20,957)
 Compared on academic failure risk items (percent)

(Data from table 15)

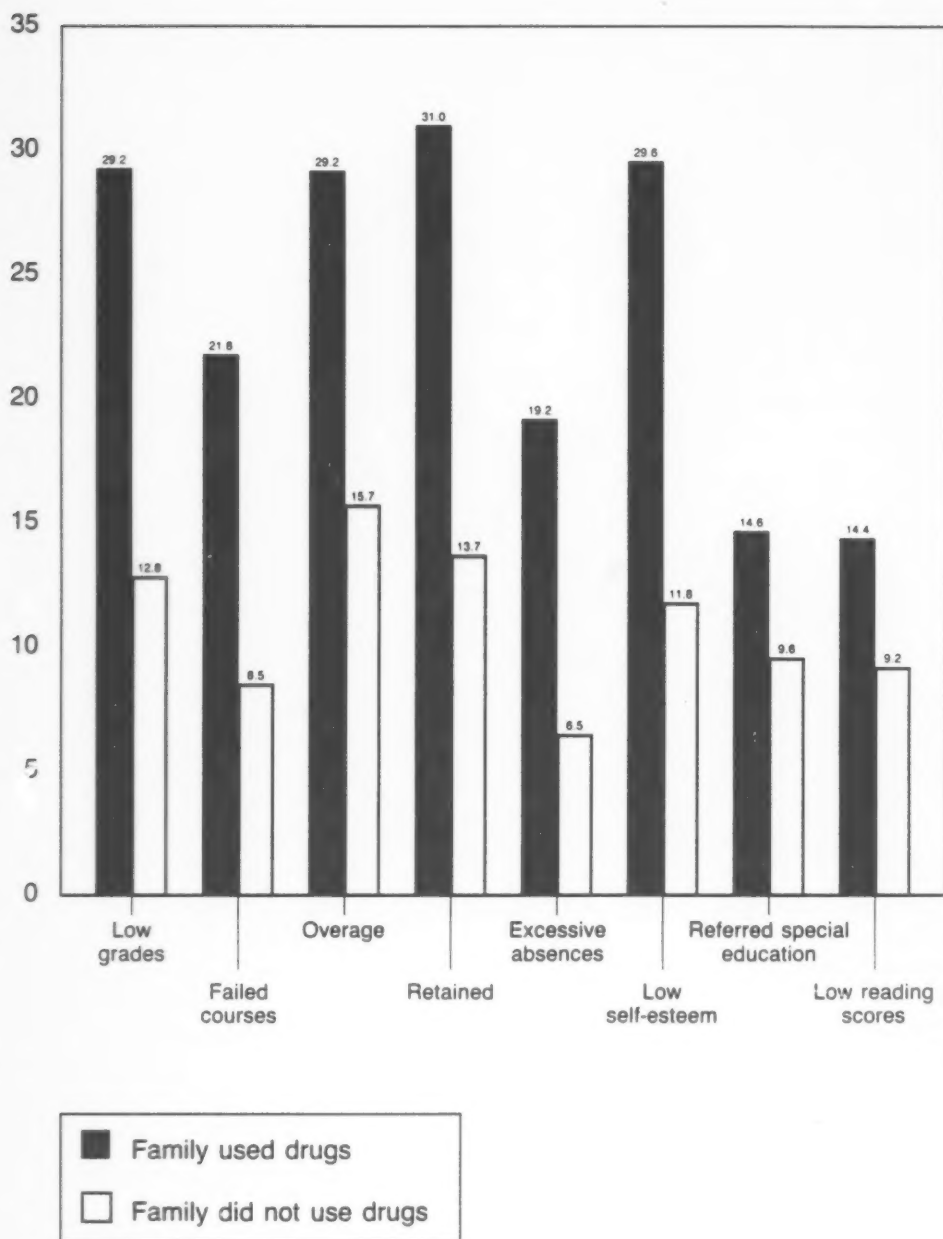


Chart 41

Student used alcohol (N = 1,002) vs. student did not use alcohol (N = 20,704)
 Compared on academic failure risk items (percent)

(Data from table 16)

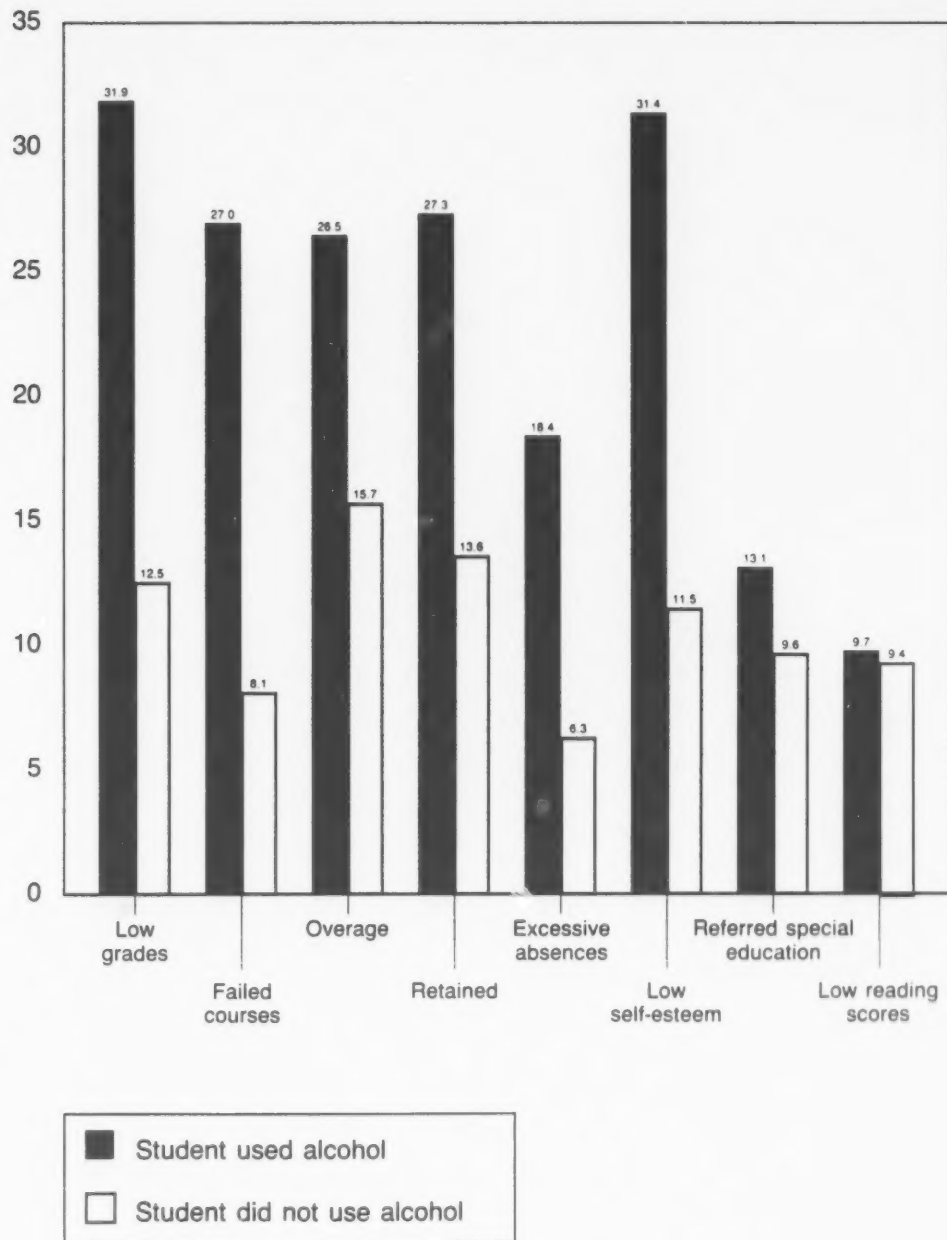


Chart 42

Parent alcoholic (N = 784) vs. parent not alcoholic (N = 20,922)
Compared on academic failure risk items (percent)

(Data from table 17)

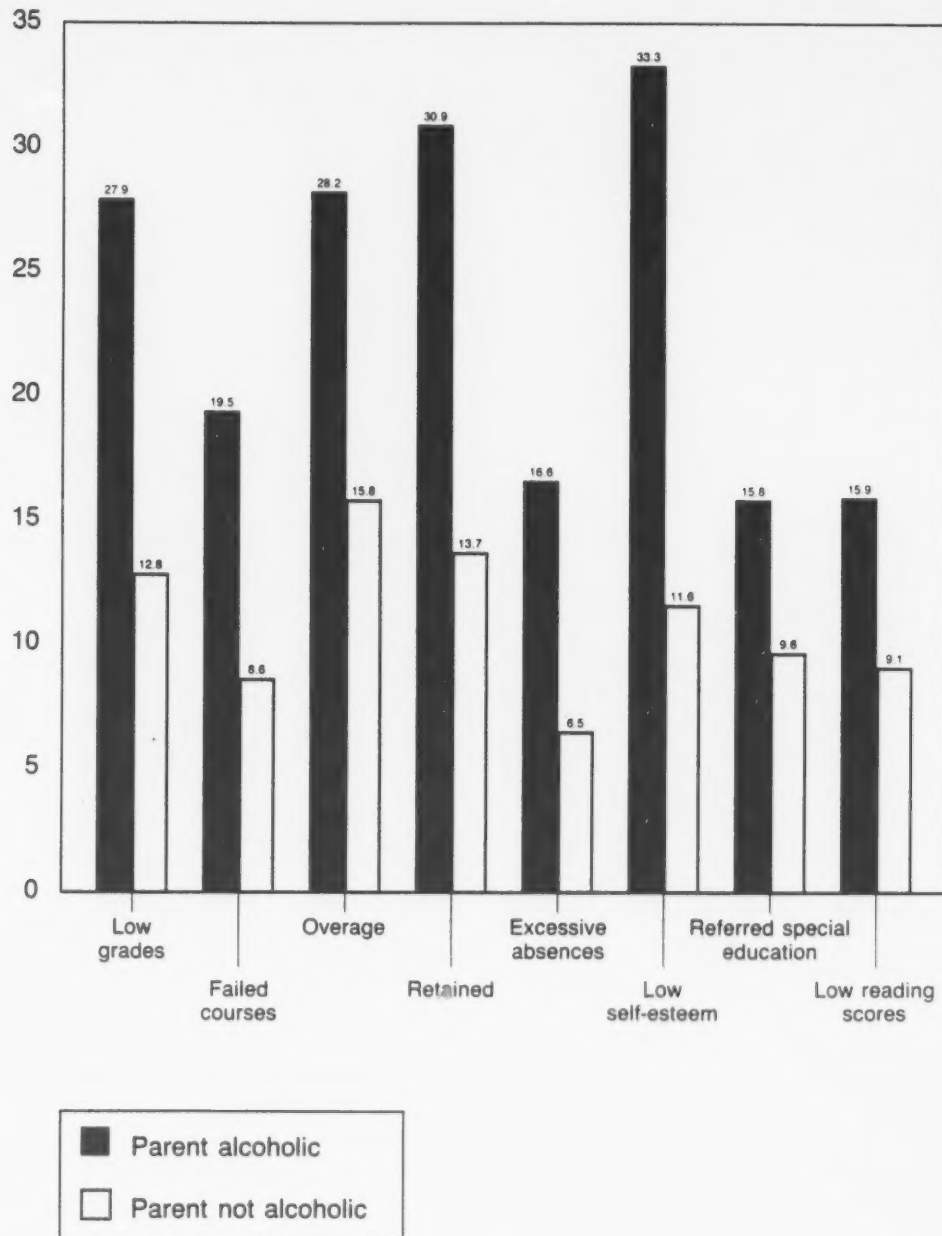


Chart 43

Student was arrested (N = 280) vs. student not arrested (N = 21,426)
Compared on academic failure risk items (percent)

(Data from table 18)

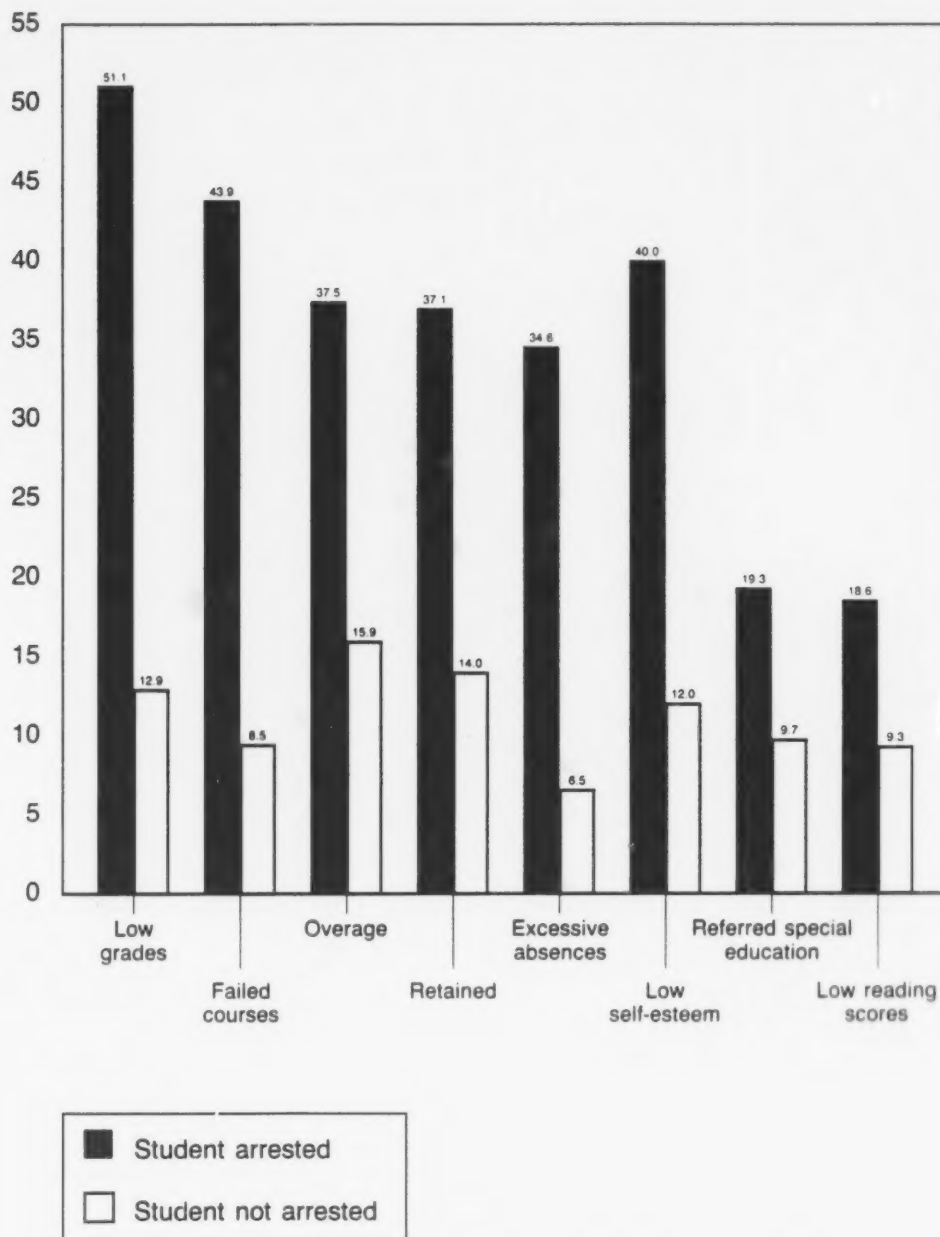


Chart 44

Student was abused (N = 406) vs. student was not abused (N = 21,300)
 Compared on academic failure risk items (percent)

(Data from table 19)

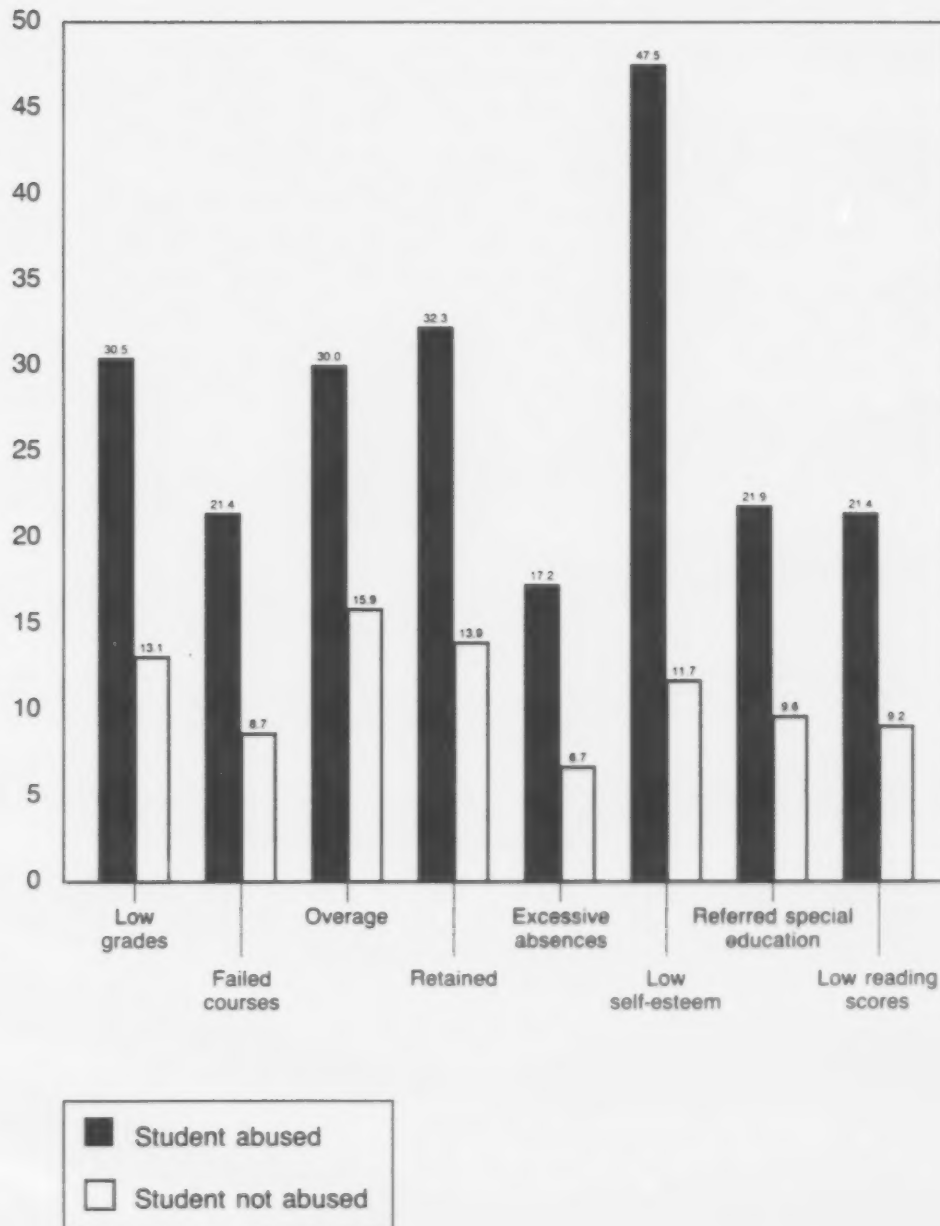


Chart 45

Low grades in school (N = 2,906) vs. grades not low (N = 18,800)
Compared on academic failure risk items (percent)

(Data from table 20)

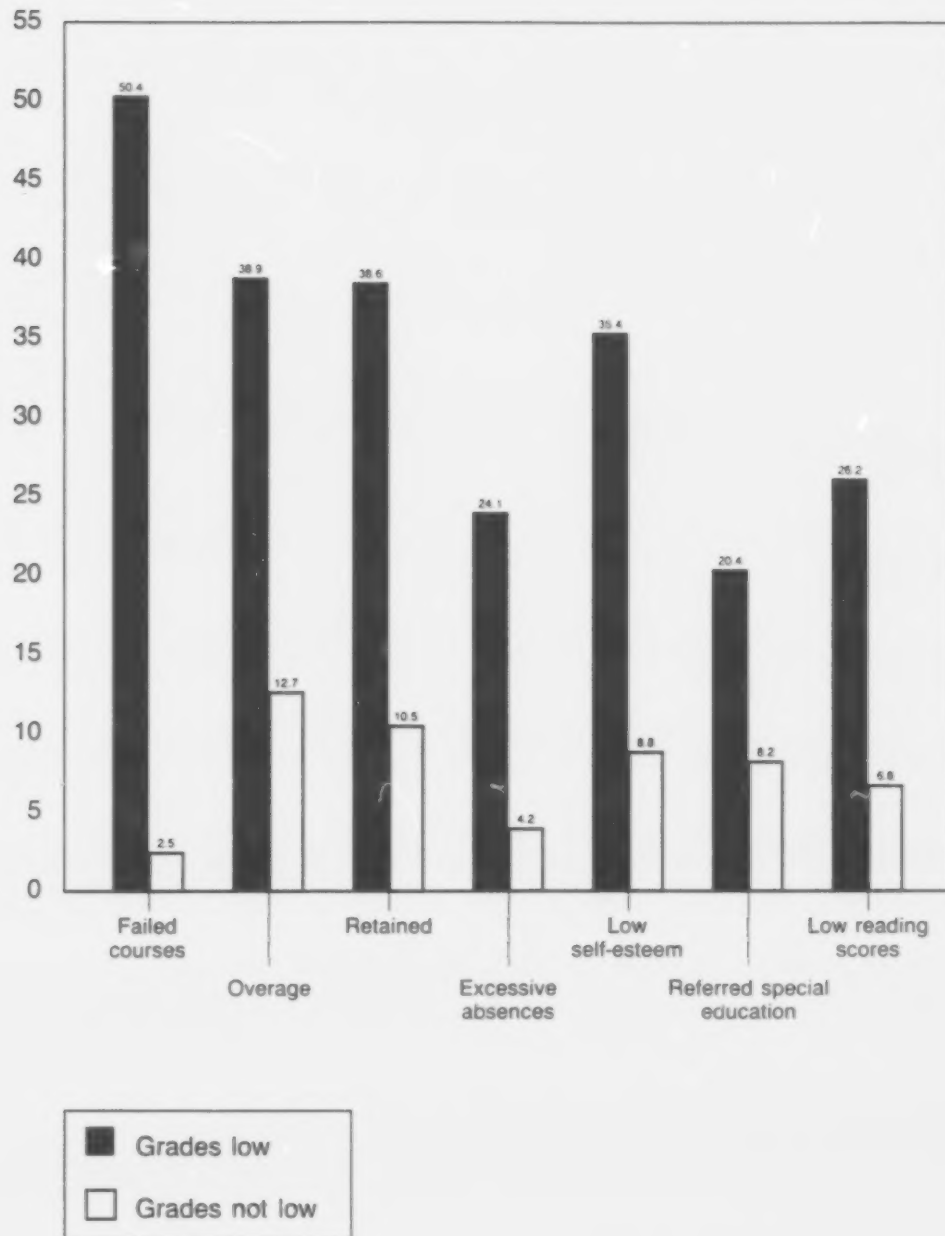


Chart 46

Student failed courses (N = 1,944) vs. student did not fail (N = 19,762)
Compared on academic failure risk items (percent)

(Data from table 21)

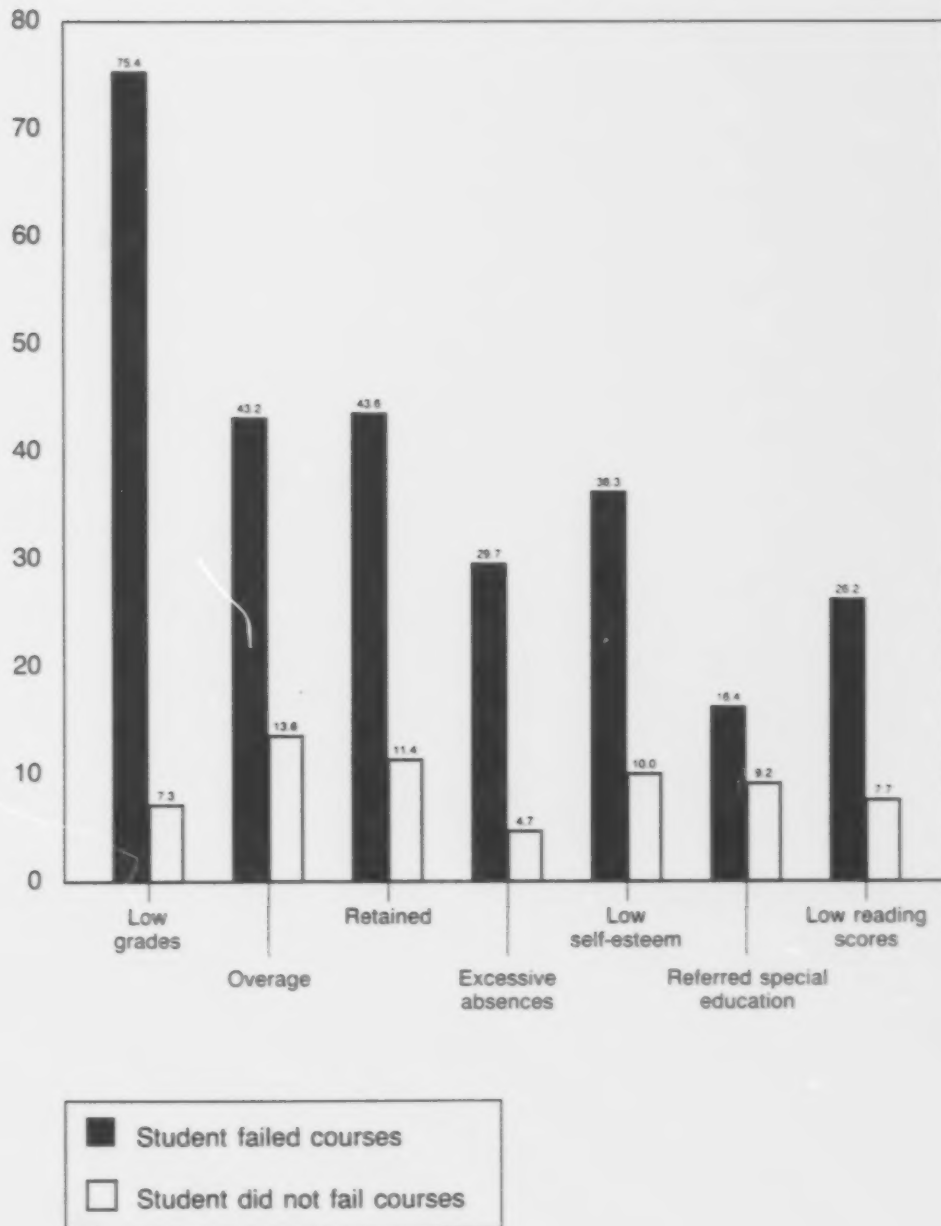


Chart 47

Student overage (N = 3,517) vs. student not overage (N = 18,189)
 Compared on academic failure risk items (percent)

(Data from table 22)

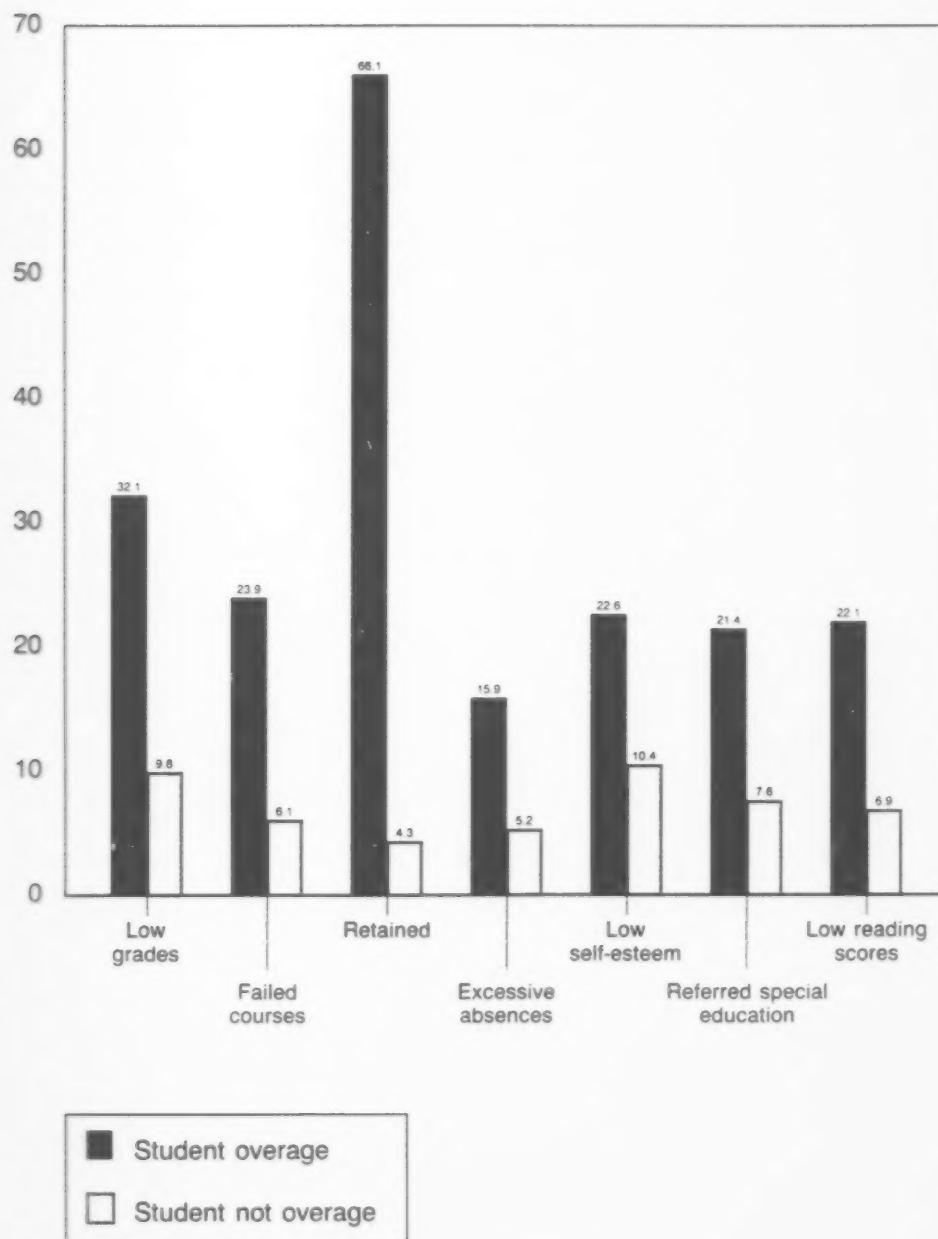


Chart 48

Student retained (N = 3,100) vs. student not retained (N = 18,606)
Compared on academic failure risk items (percent)

(Data from table 23)

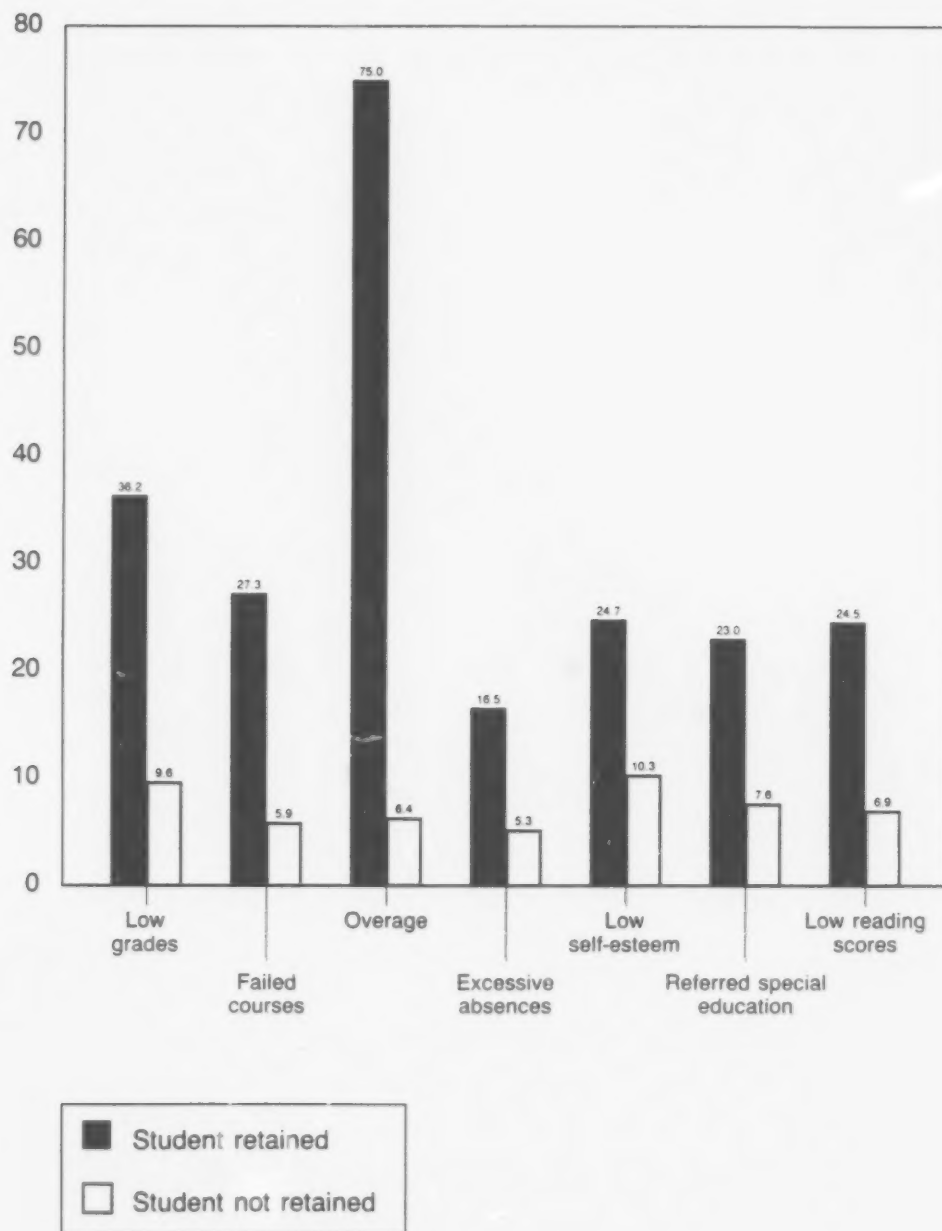


Chart 49

Excessive absences (N = 1,497) vs. no excessive absences (N = 20,209)
 Compared on academic failure risk items (percent)

(Data from table 24)

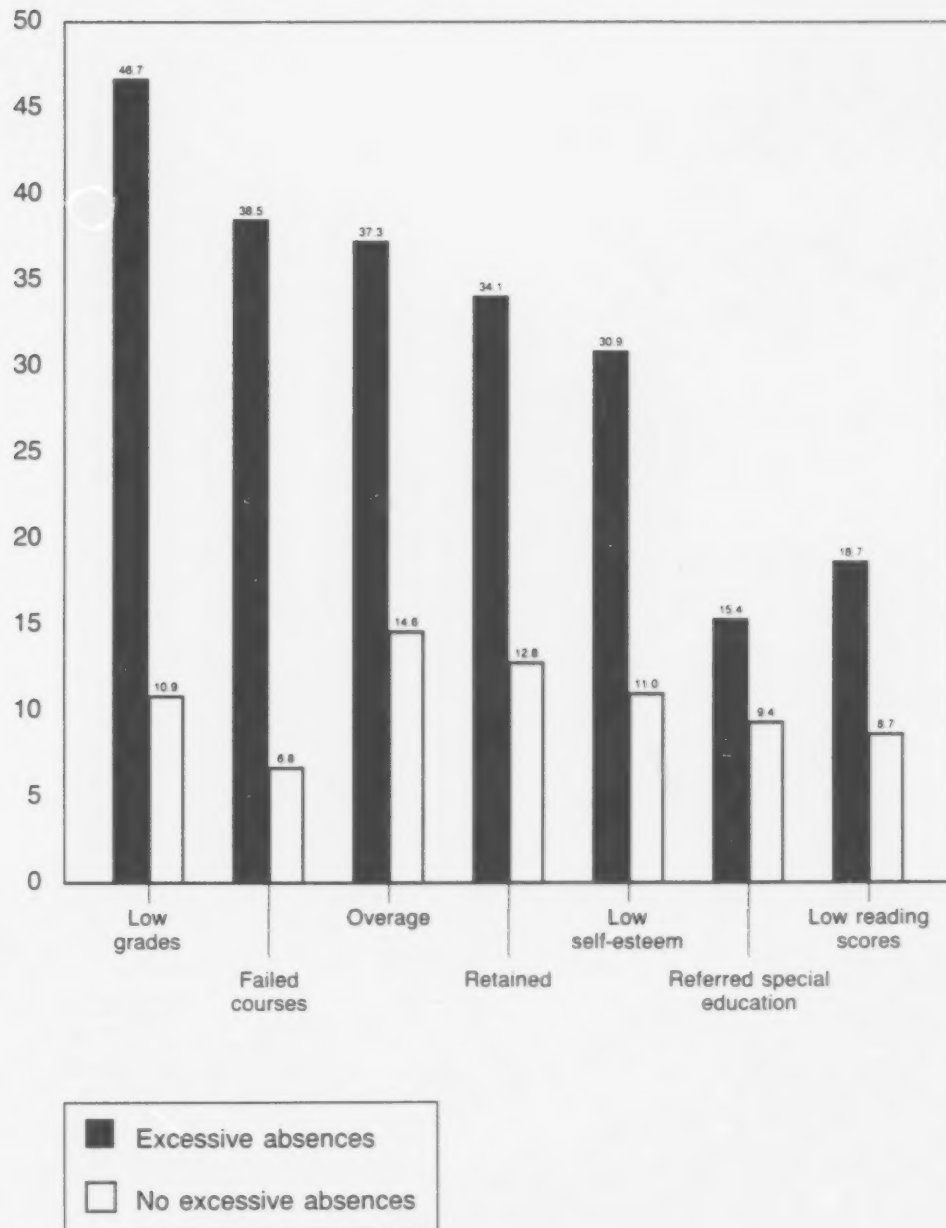


Chart 50

Low self-esteem (N = 2,686) vs. not low self-esteem (N = 19,020)
Compared on academic failure risk items (percent)

(Data from table 25)

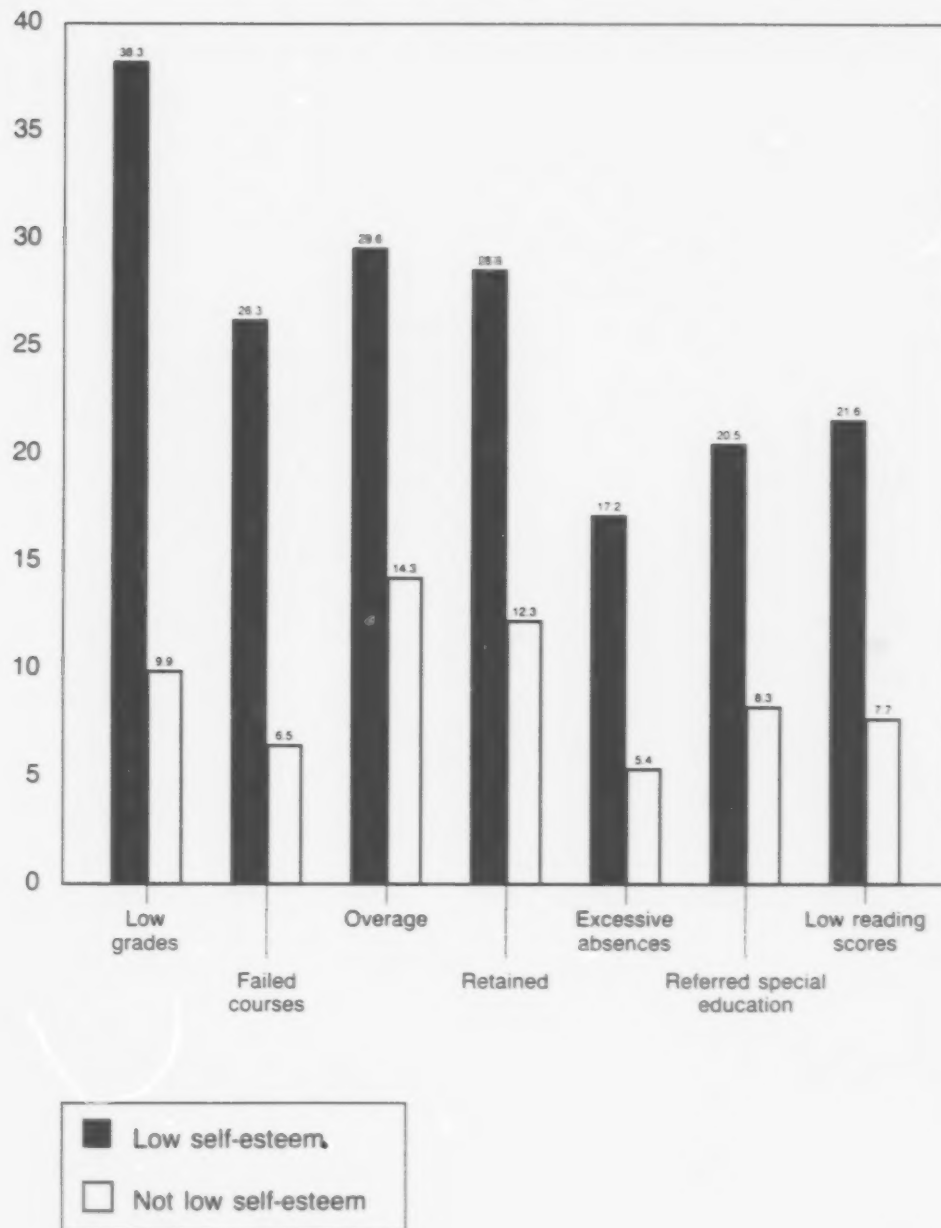


Chart 51

Referred to special education (N = 2,128) vs. not referred to special education (N = 19,578)
Compared on academic failure risk items (percent)

(Data from table 26)

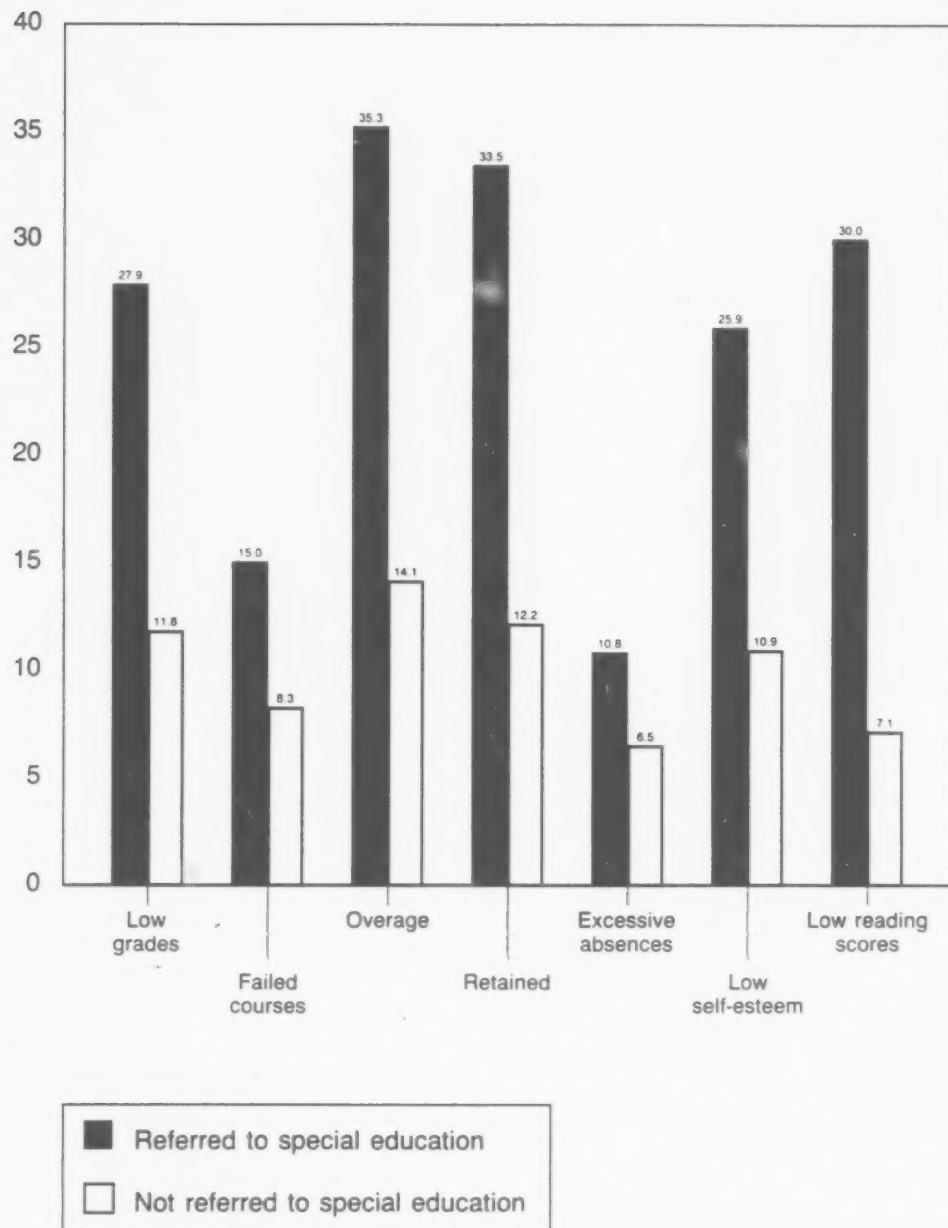


Chart 52

Low reading scores (N = 2,037) vs. not low reading scores (N = 19,669)
Compared on academic failure risk items (percent)

(Data from table 27)

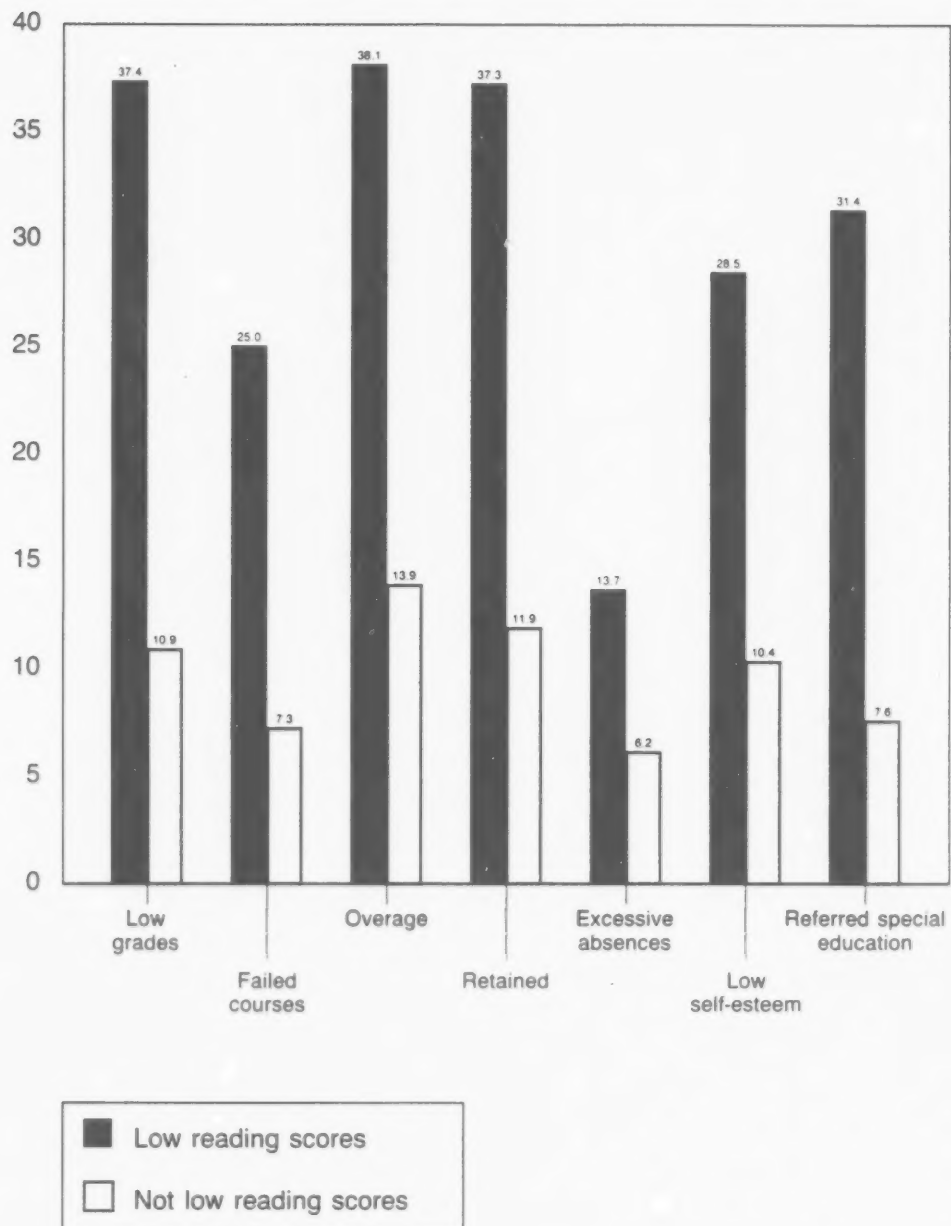


Chart 53

Parent sick in last year (N = 878) vs. parent not sick in last year (N = 20,828)
Compared on academic failure risk items (percent)

(Data from table 28)

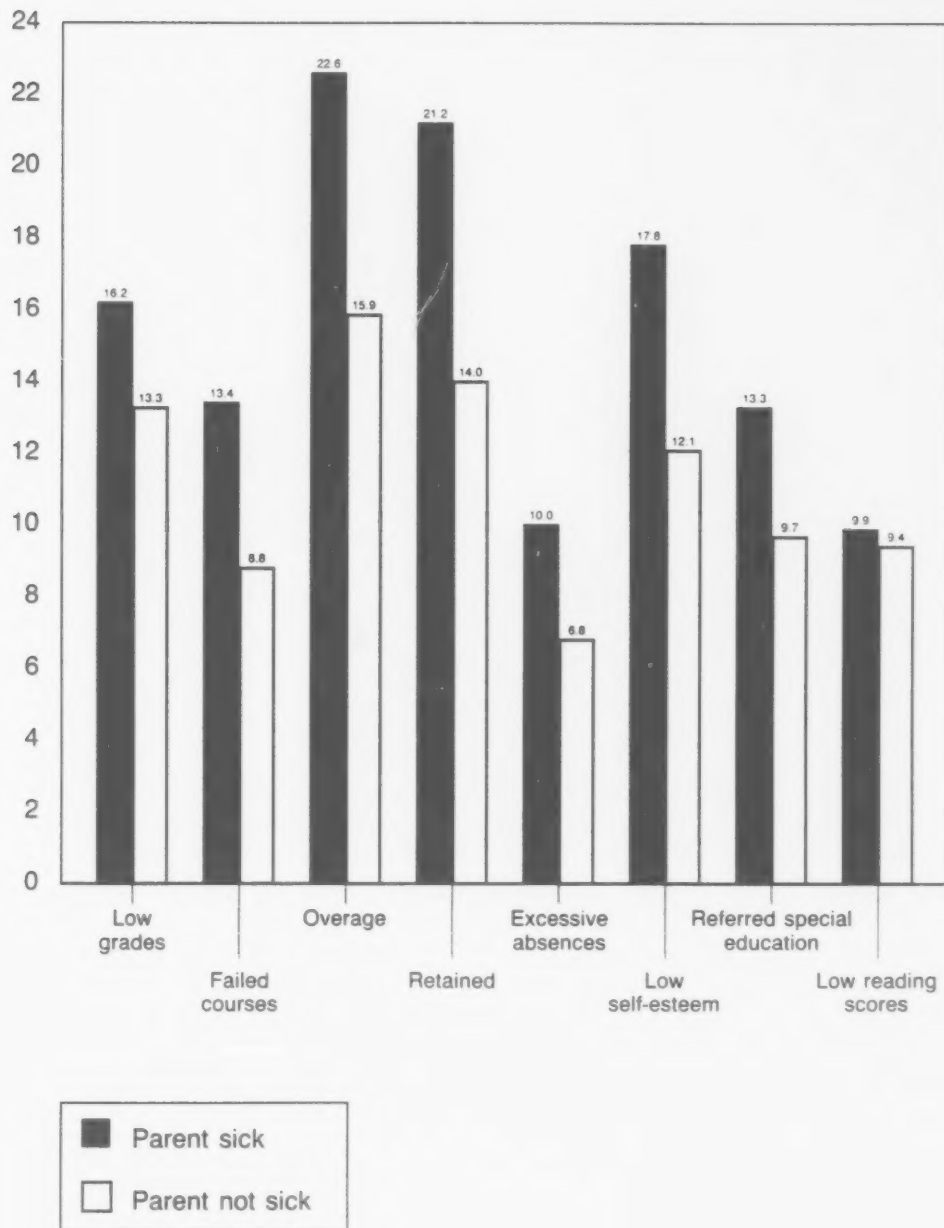


Chart 54

Parent died last year (N = 198) vs. parent did not die last year (N = 21,507)
 Compared on academic failure risk items (percent)

(Data from table 29)

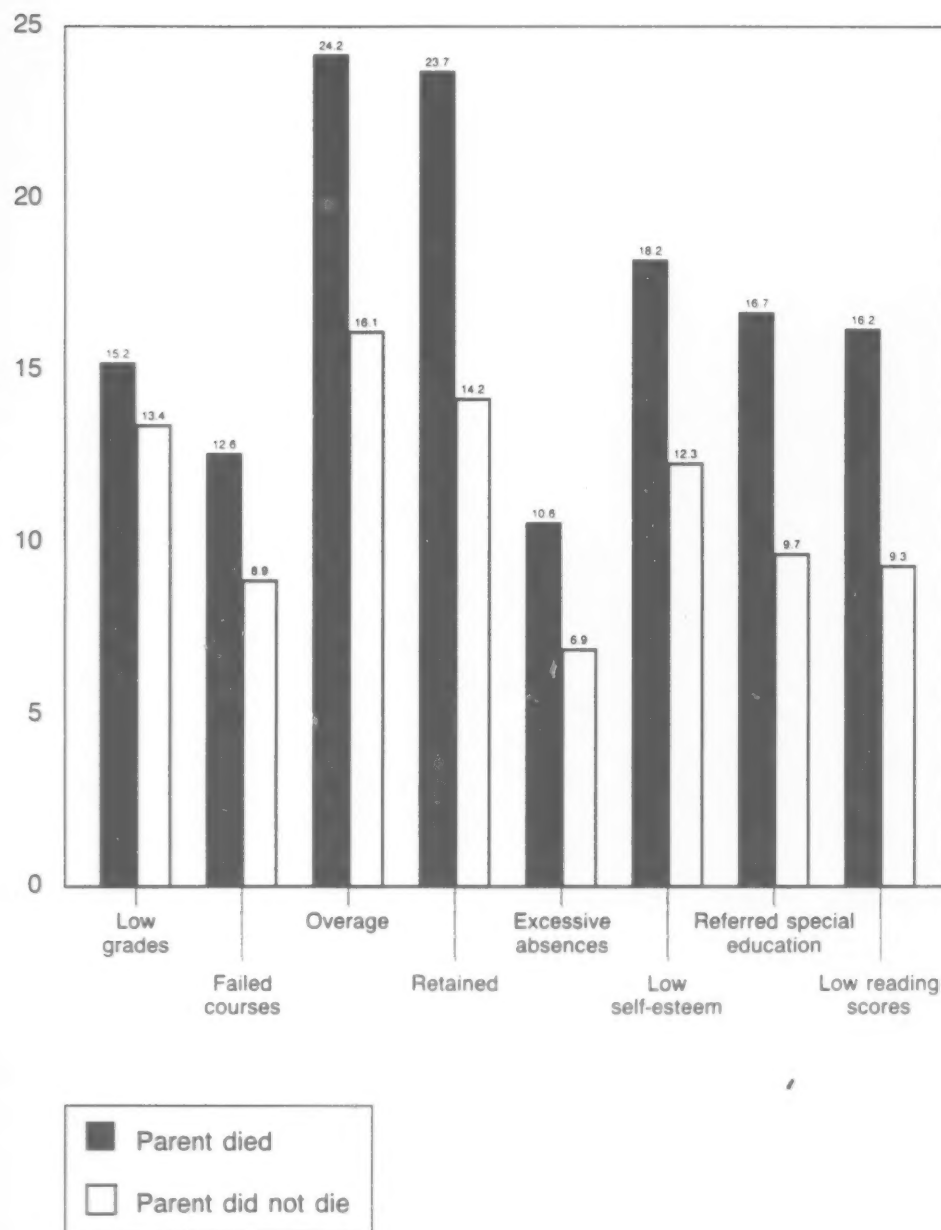


Chart 55

Parent lost job (N = 869) vs. parent did not lose job (N = 20,837)
Compared on academic failure risk items (percent)

(Data from table 30)

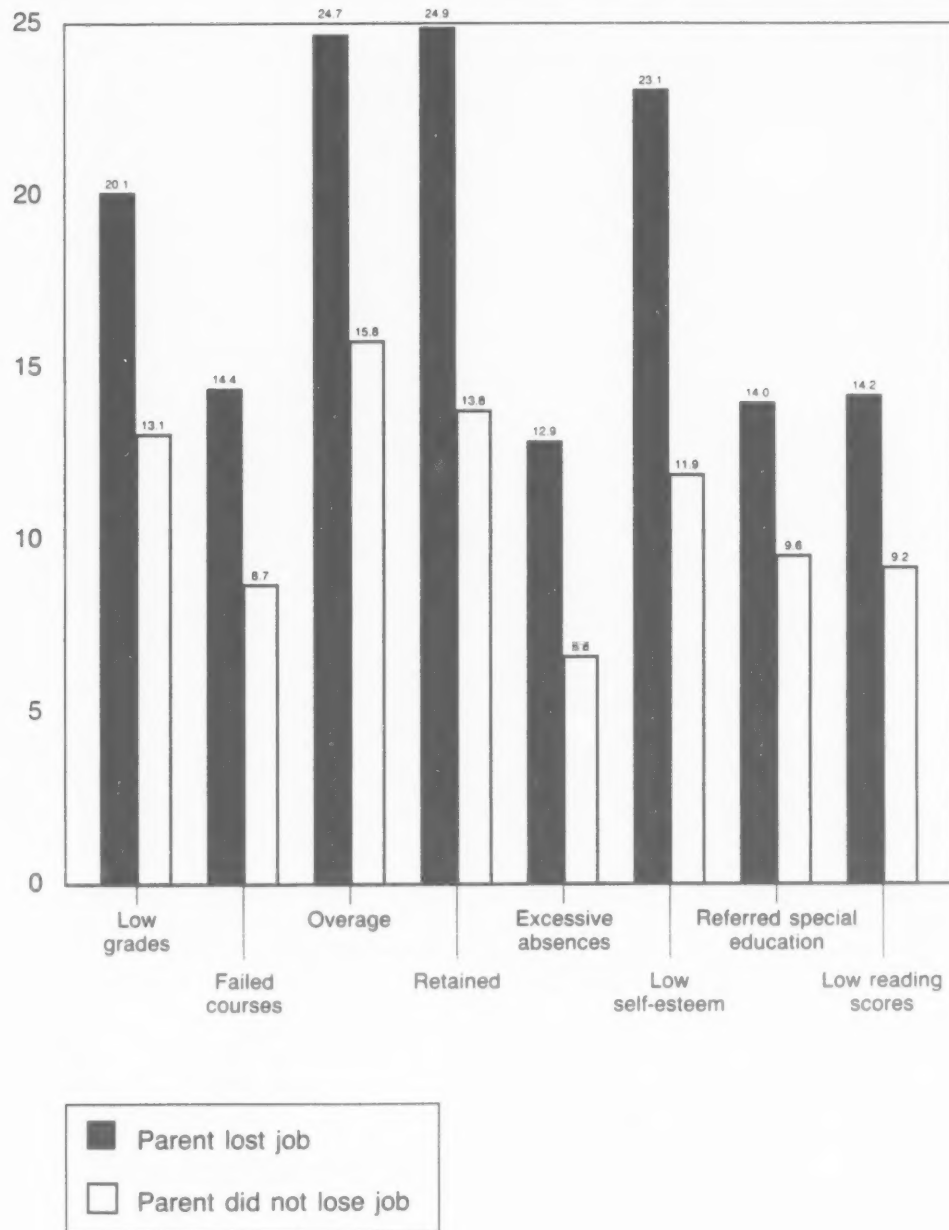


Chart 56

Friend died last year (N = 998) vs. friend did not die last year (N = 20,708)
 Compared on academic failure risk items (percent)

(Data from table 31)

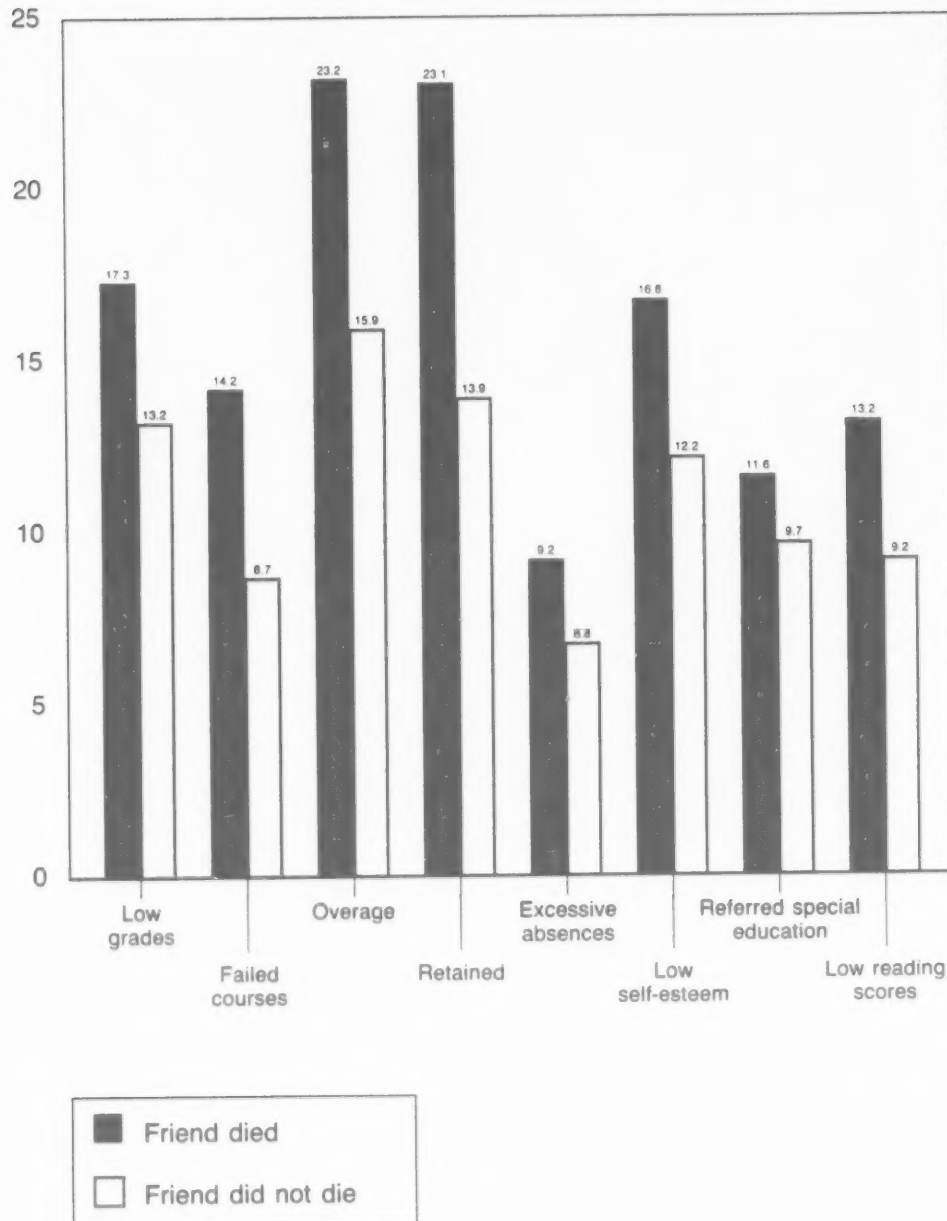


Chart 57

Student seriously ill in last year (N = 697) vs. student not ill (N = 21,009)
 Compared on academic failure risk items (percent)

(Data from table 32)

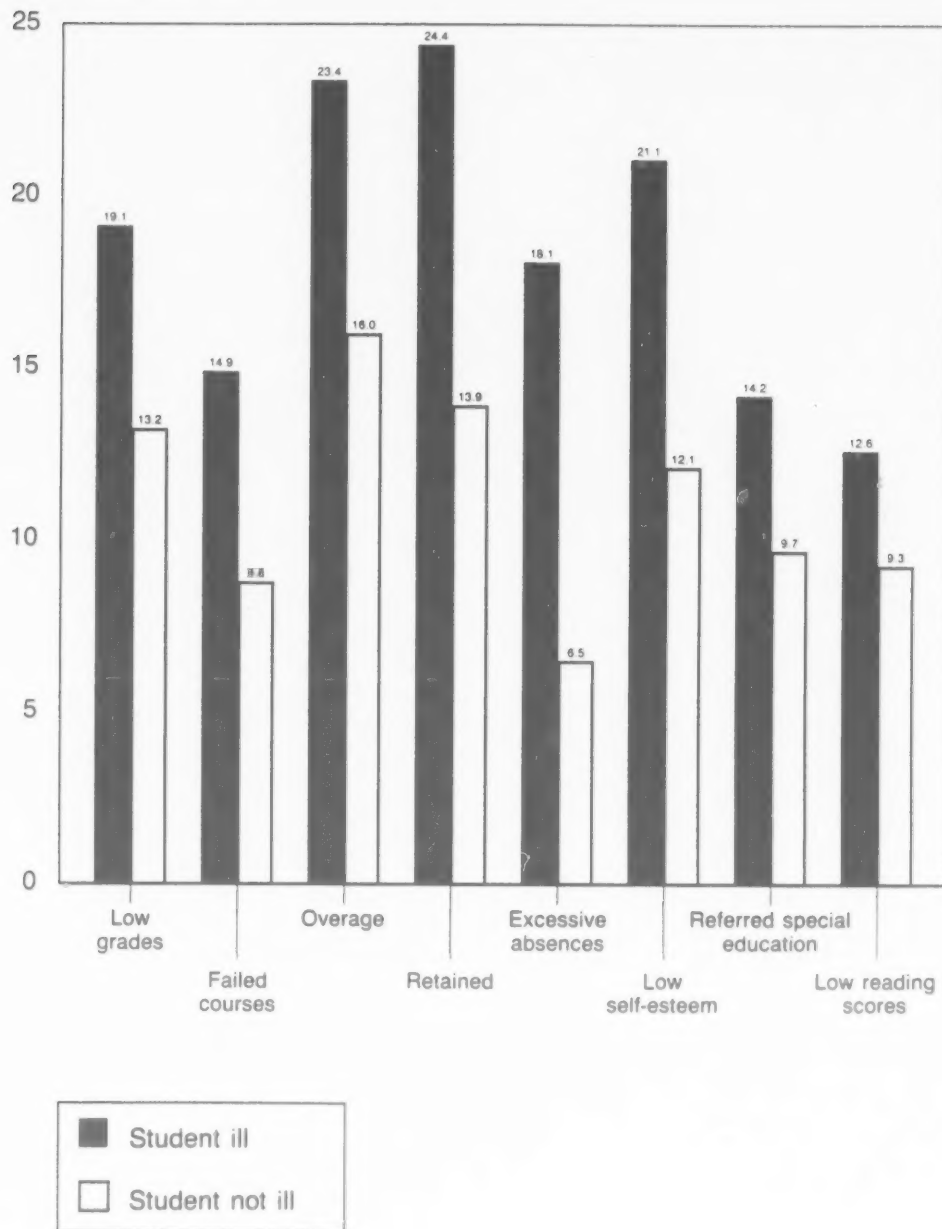


Chart 58

Sibling died in last year (N = 118) vs. sibling did not die (N = 21,706)
 Compared on academic failure risk items (percent)

(Data from table 33)

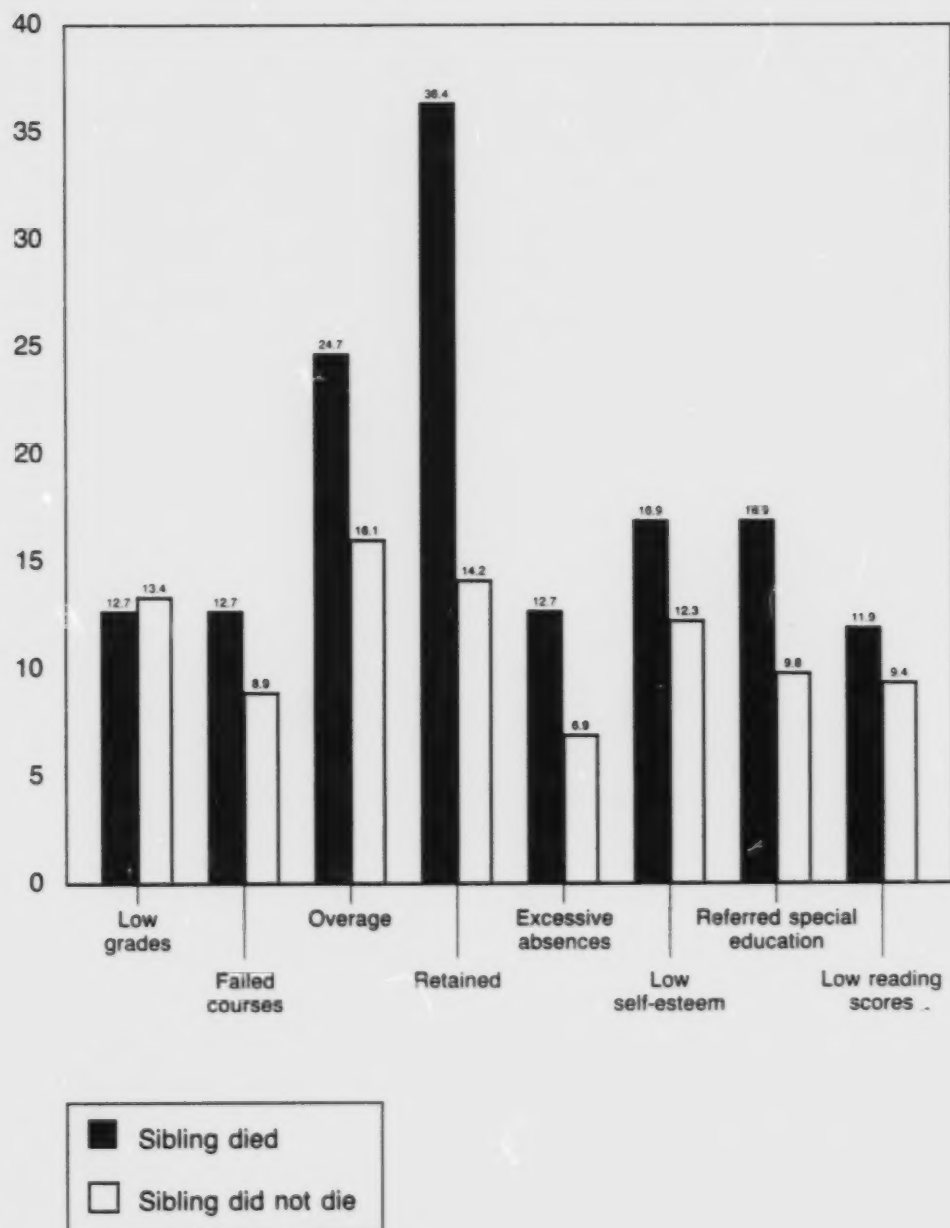


Chart 59

Father has low-level job (N = 3,659) vs. father does not have low-level job (N = 18,047)
 Compared on academic failure risk items (percent)

(Data from table 34)

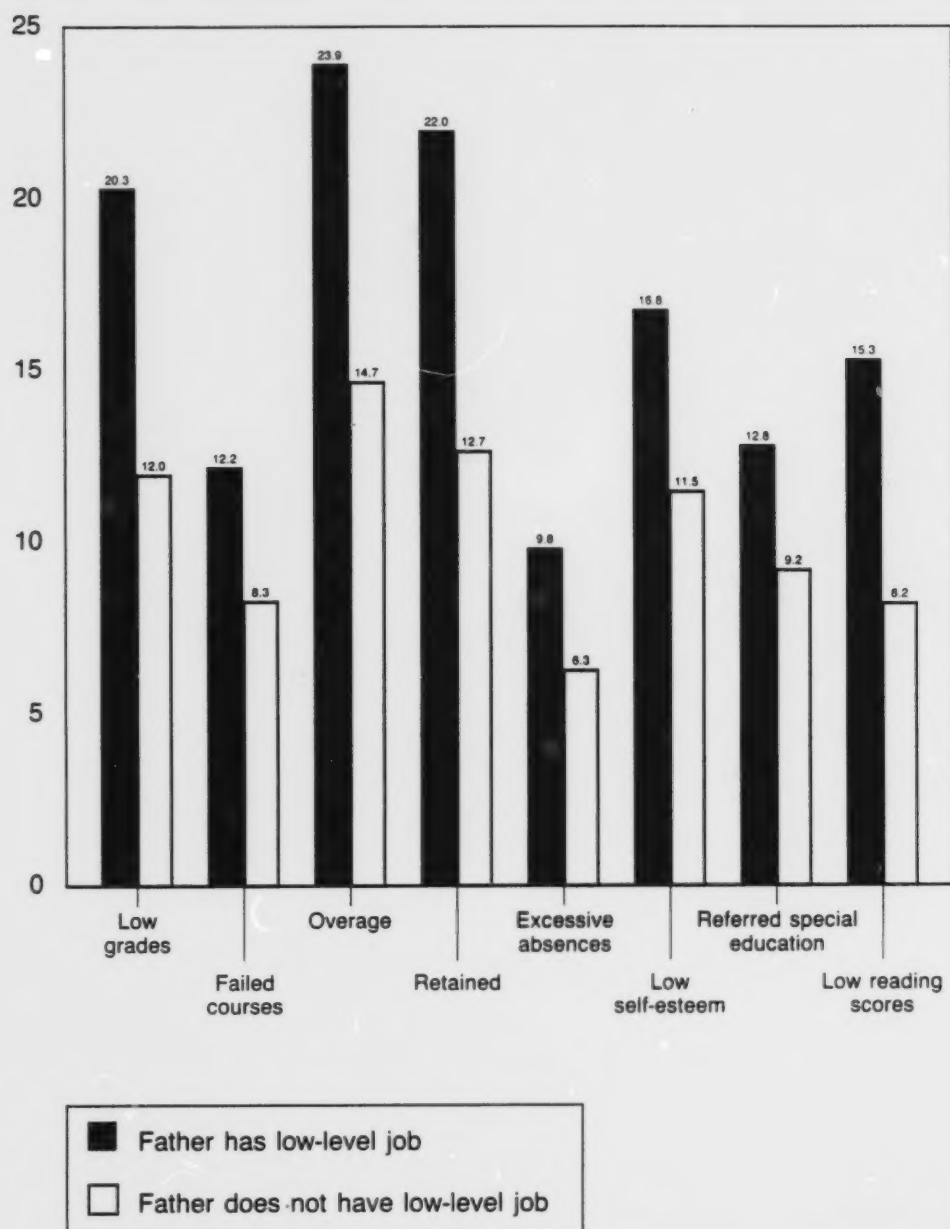


Chart 60

Father did not graduate (N = 1,680) vs. father did graduate (N = 20,026)
Compared on academic failure risk items (percent)

(Data from table 35)

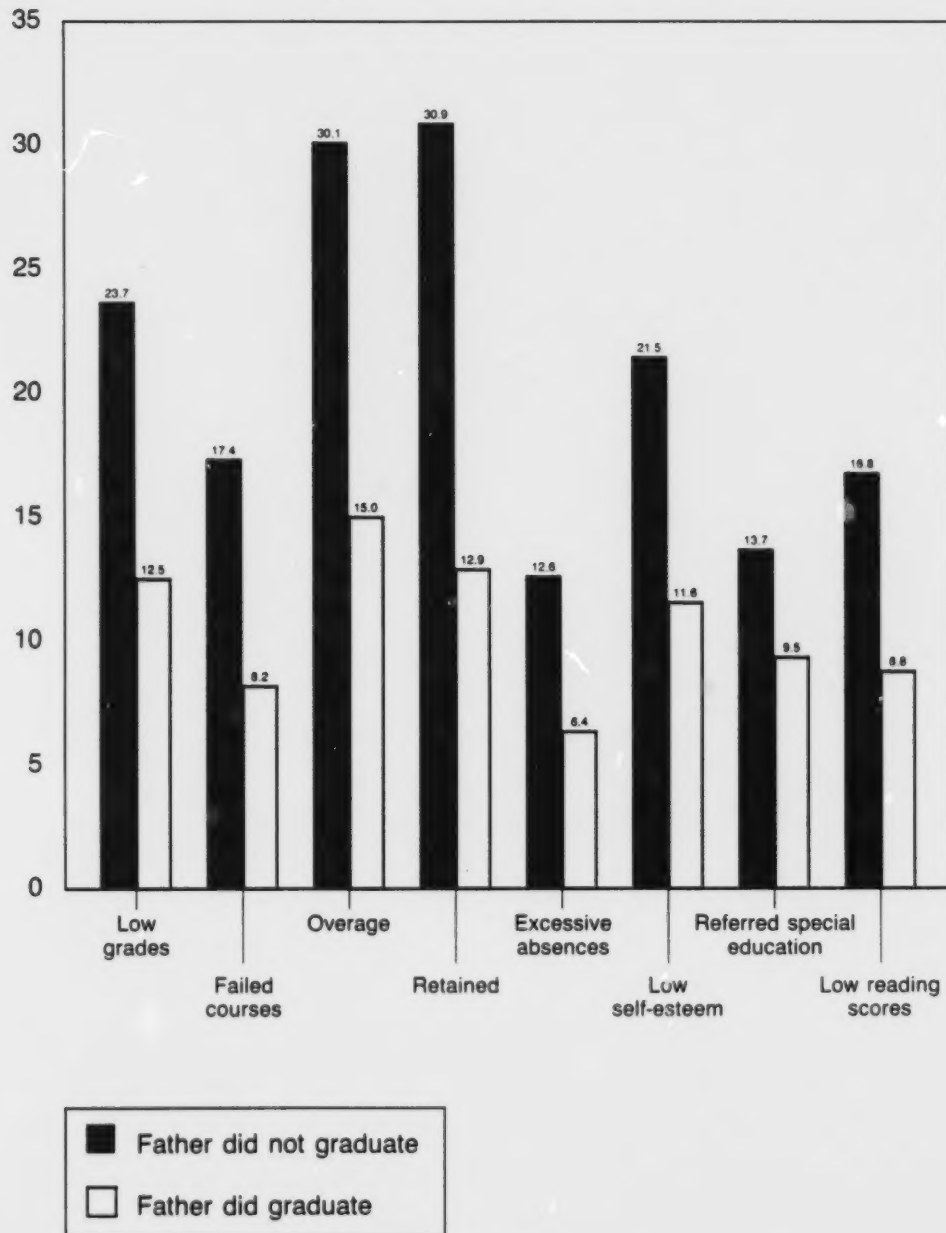


Chart 61

Mother has low-level job (N = 4,260) vs. mother does not have low-level job (N = 17,446)
Compared on academic failure risk items (percent)

(Data from table 36)

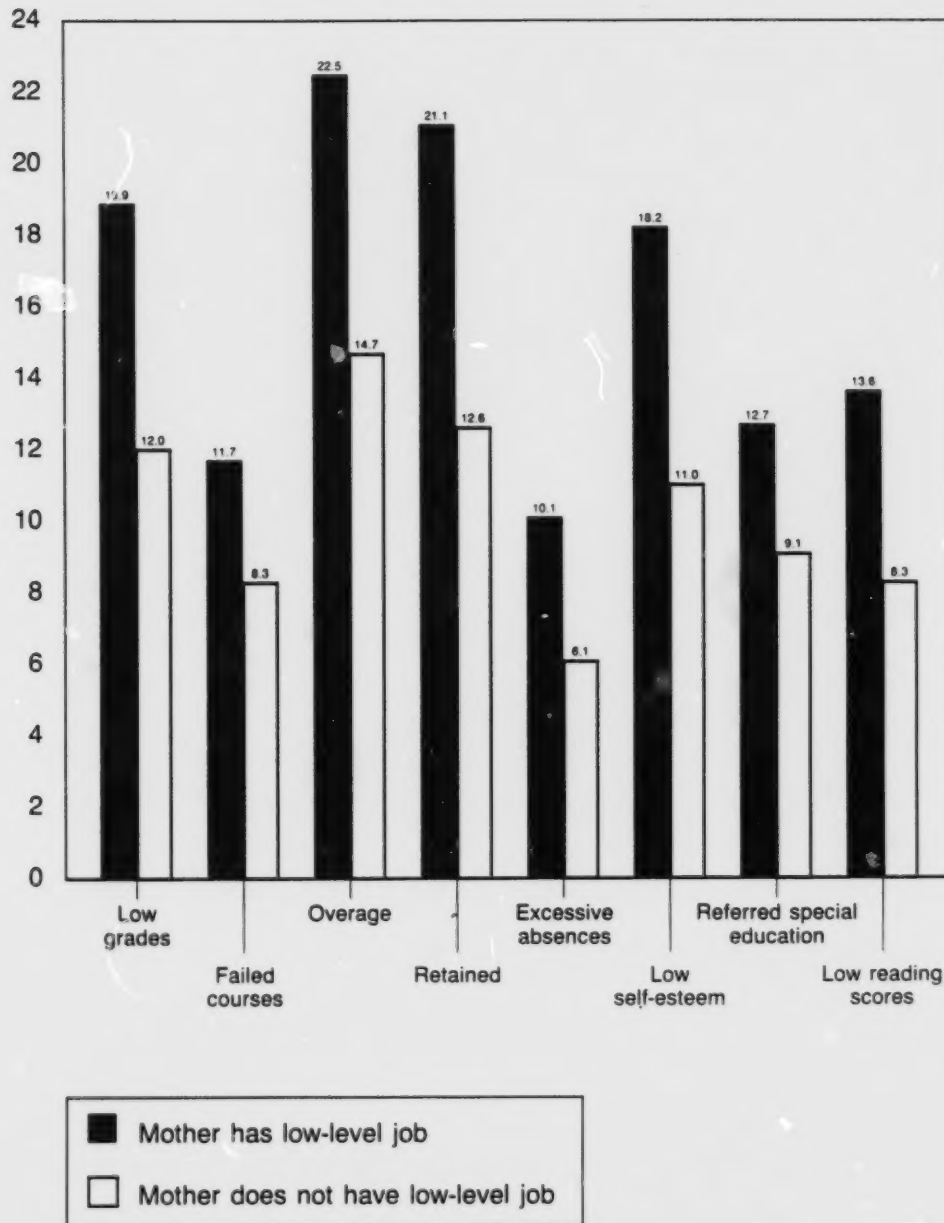


Chart 62

Mother did not graduate (N = 1,809) vs. mother did graduate (N = 19,897)
Compared on academic failure risk items (percent)

(Data from table 37)

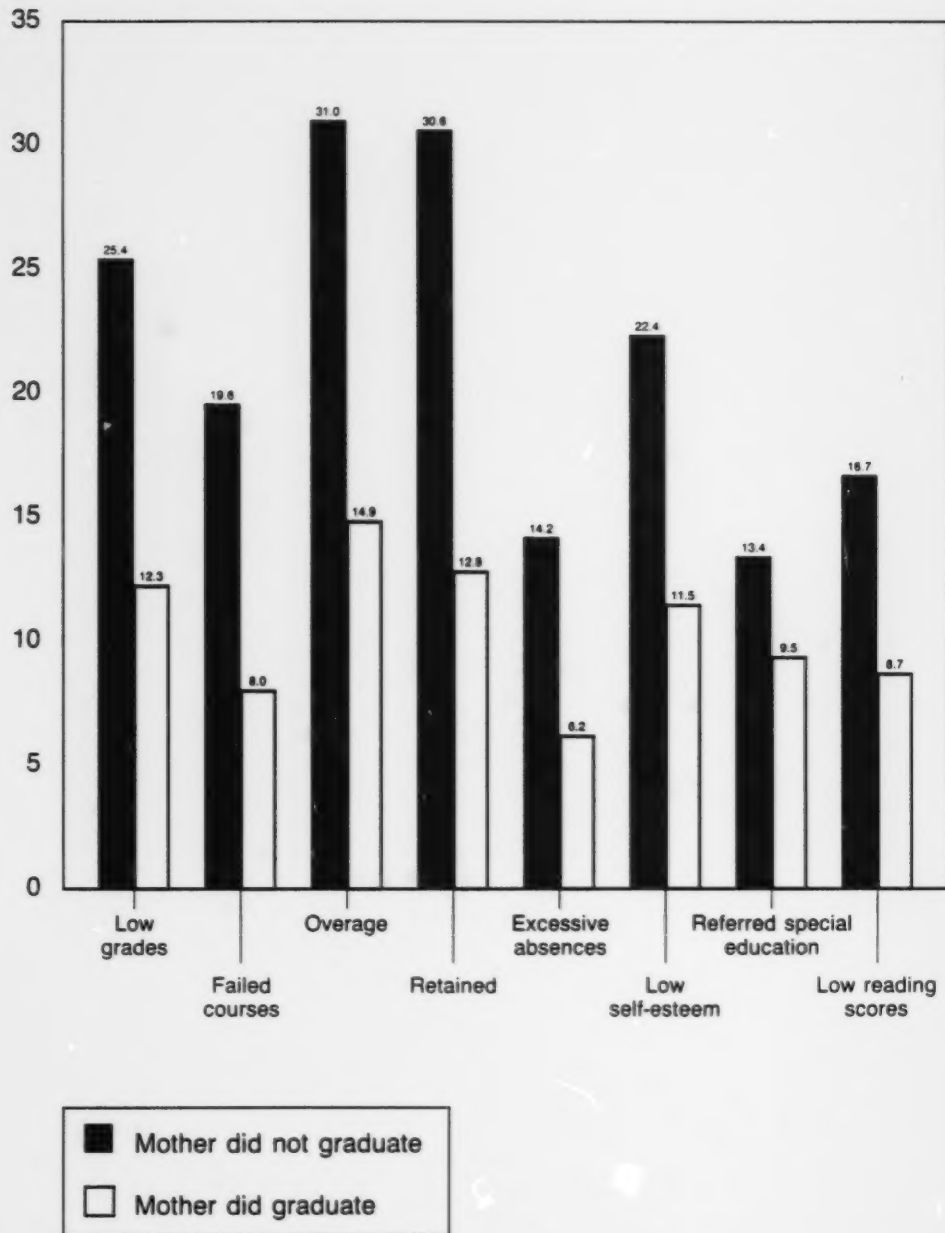


Chart 63

Parents' attitude negative (N = 1,089) vs. parents' attitude not negative (N = 20,617)
 Compared on academic failure risk items (percent)

(Data from table 38)

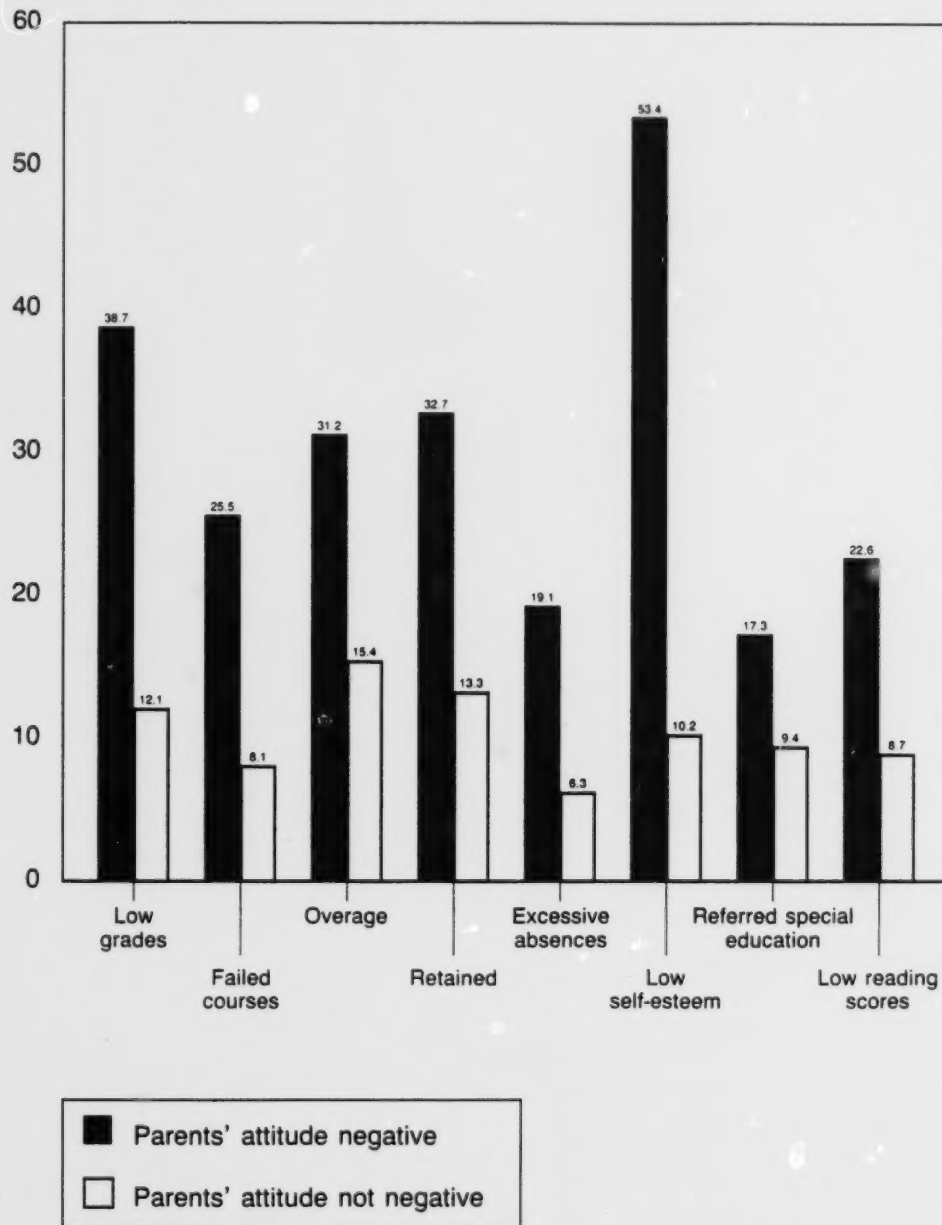


Chart 64

No English spoken (N = 1,067) vs. English spoken (N = 20,639)
Compared on academic failure risk items (percent)

(Data from table 39)

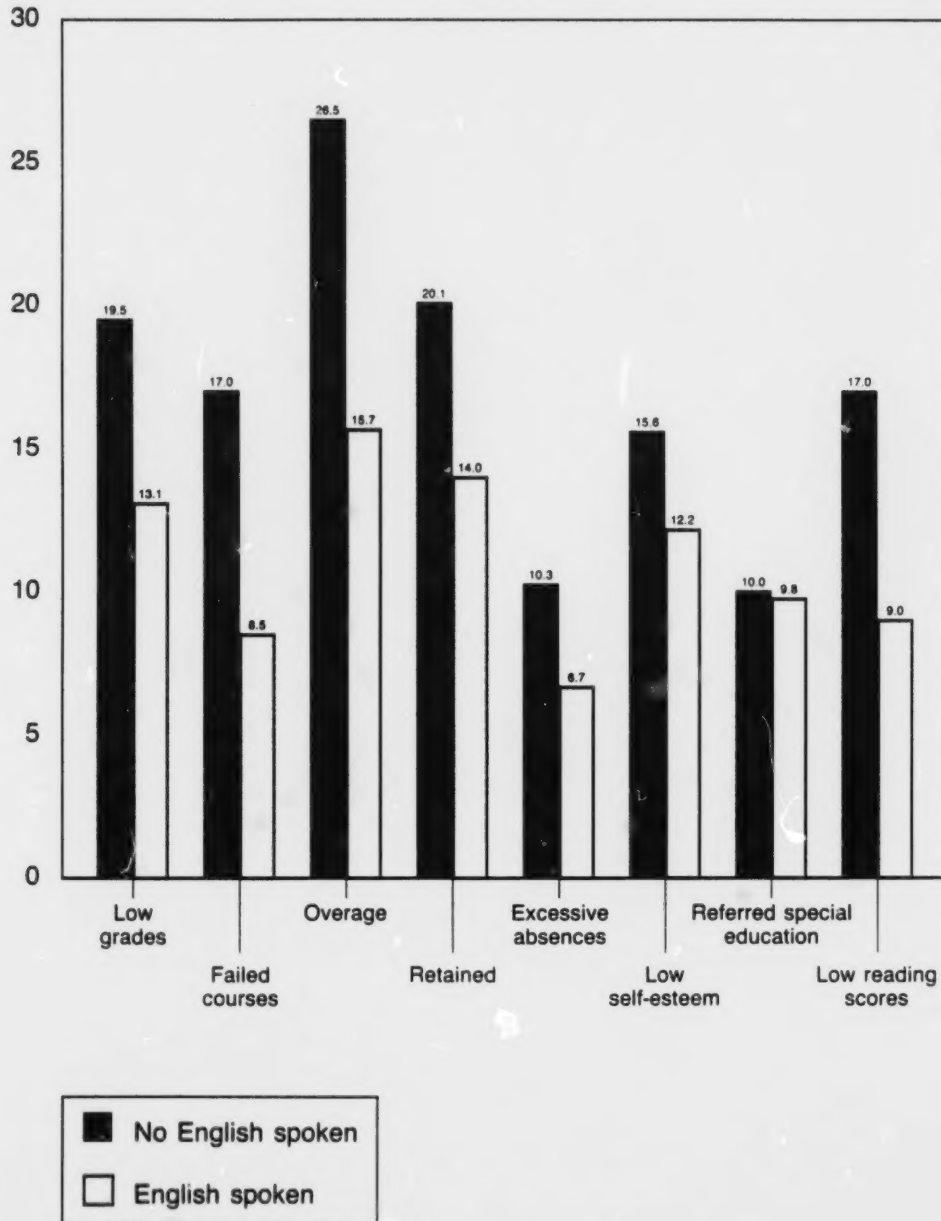


Chart 65

From broken home (N = 7,505) vs. real parents (N = 14,201)
Compared on academic failure risk items (percent)

(Data from table 40)

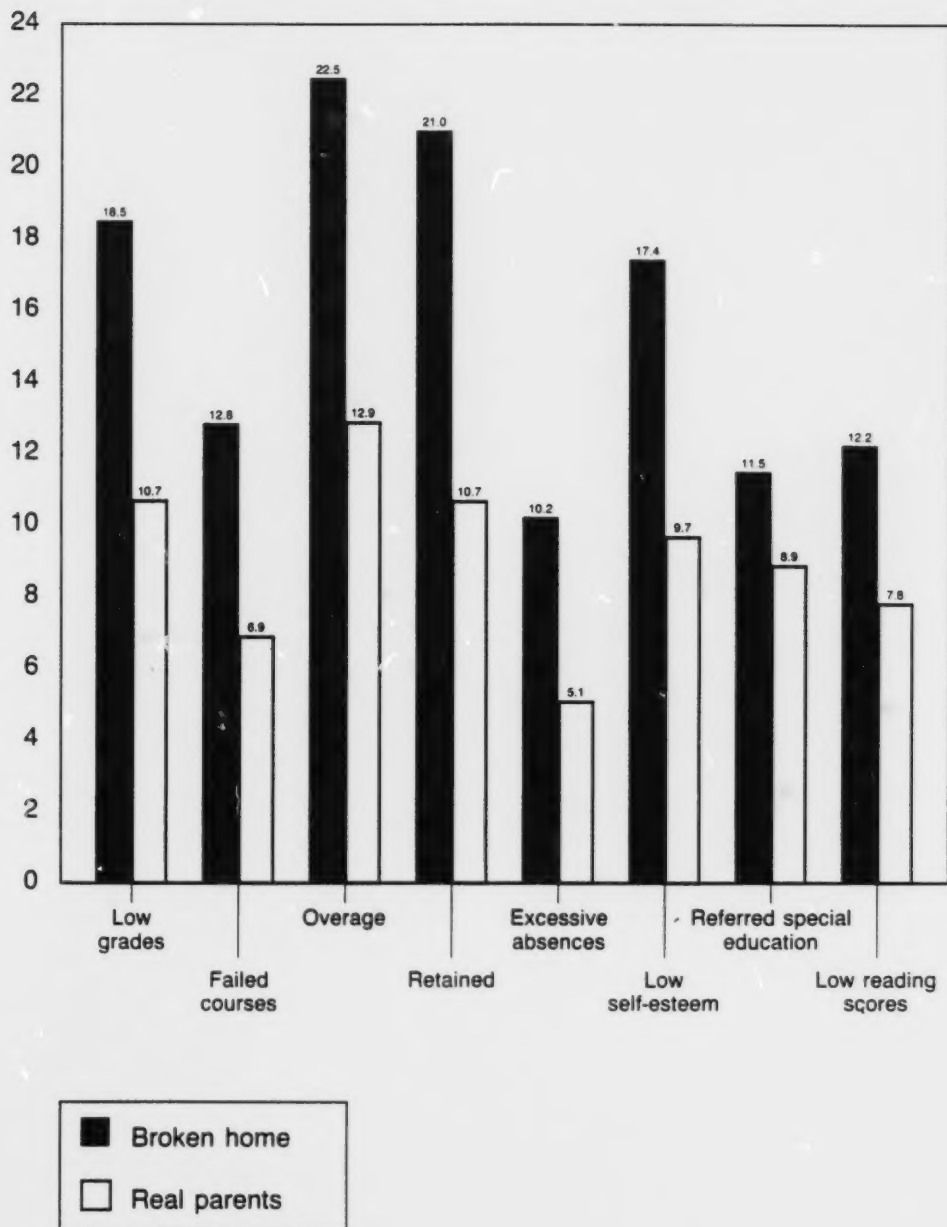


Chart 66

Moved frequently (N = 3,432) vs. did not move frequently (N = 18,274)
 Compared on academic failure risk items (percent)

(Data from table 41)

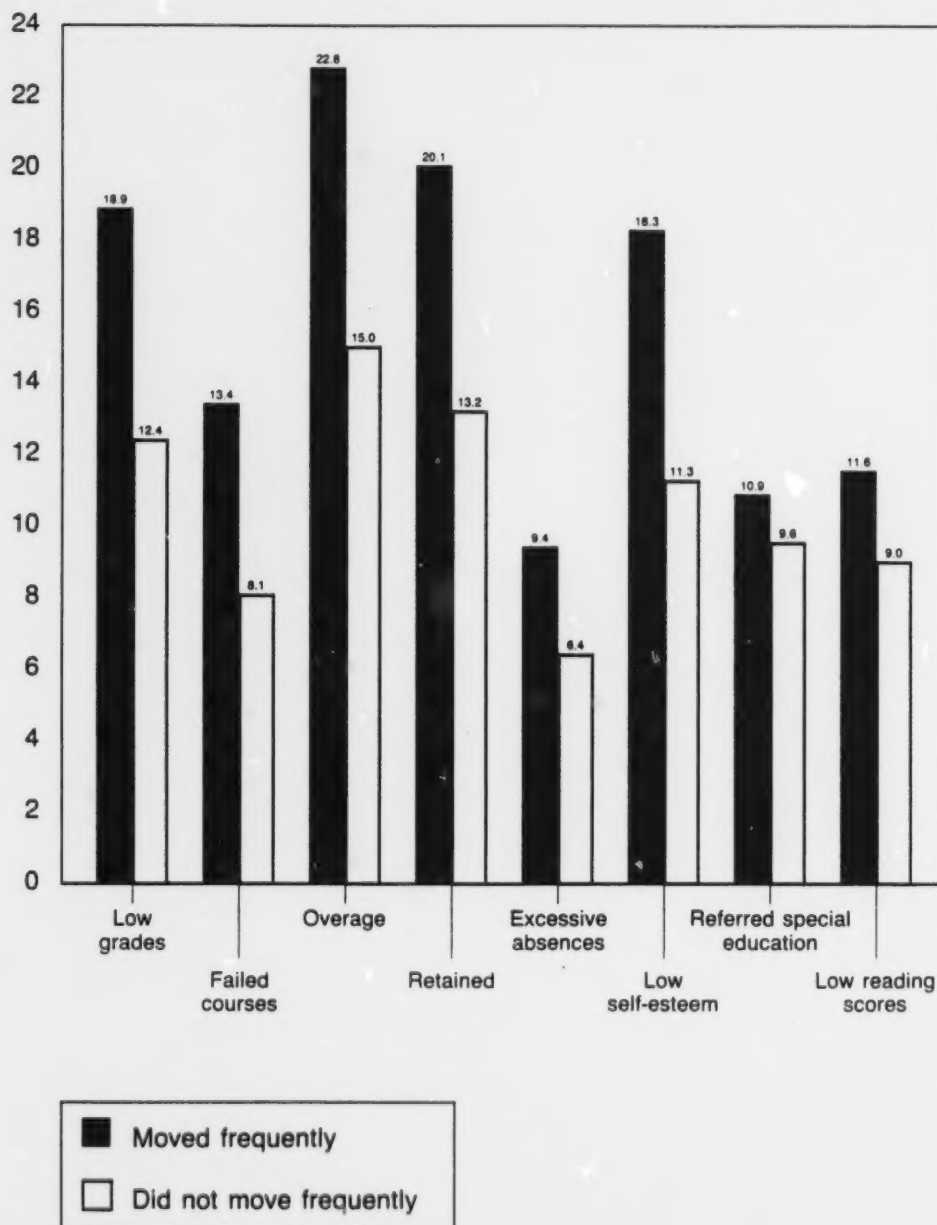


Chart 67

Changed schools frequently (N = 5,068) vs. did not change schools frequently (N = 16,638)
 Compared on academic failure risk items (percent)

(Data from table 42)

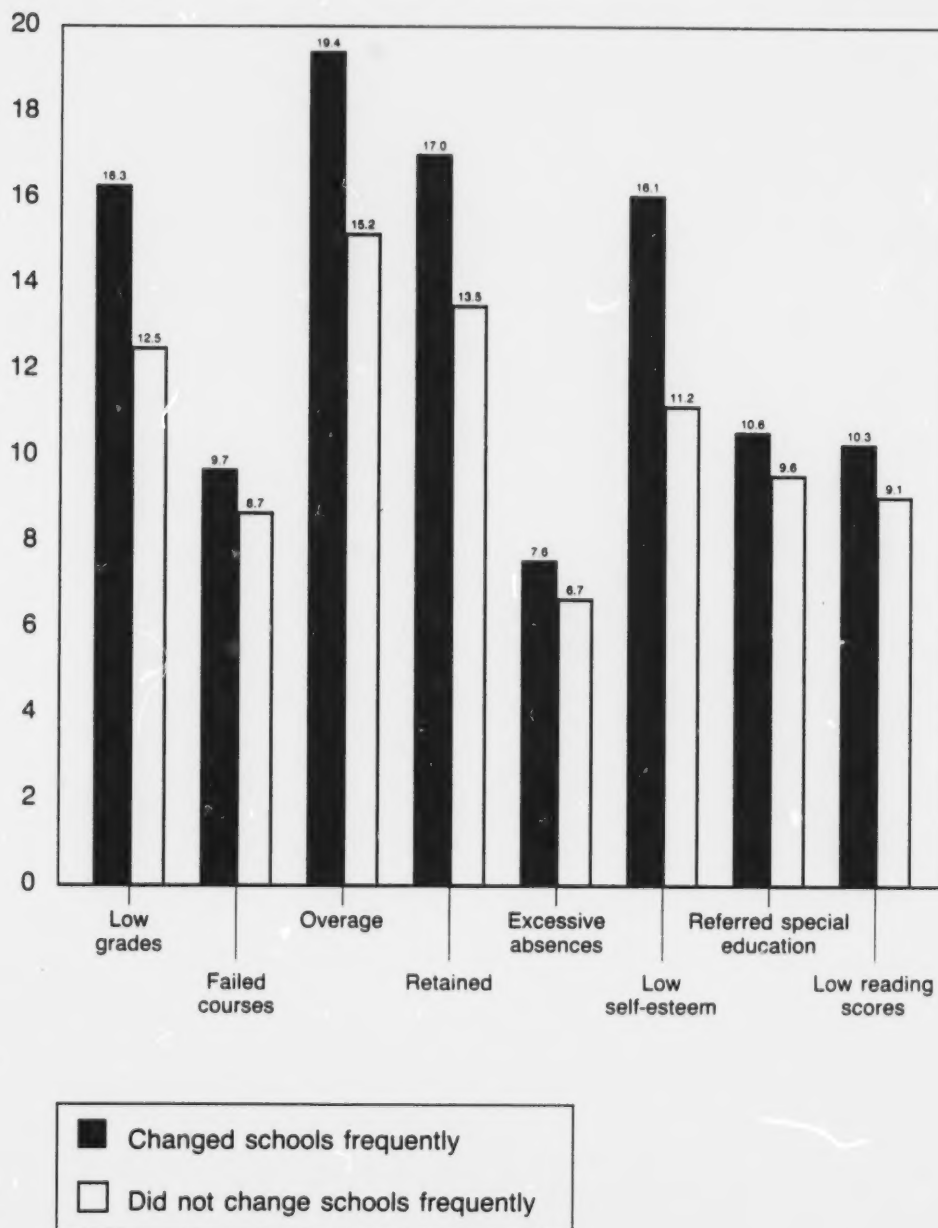


Chart 68

Parents divorced in last year (N = 1,484) vs. parents did not divorce in last year (N = 20,222)
Compared on academic failure risk items (percent)

(Data from table 43)

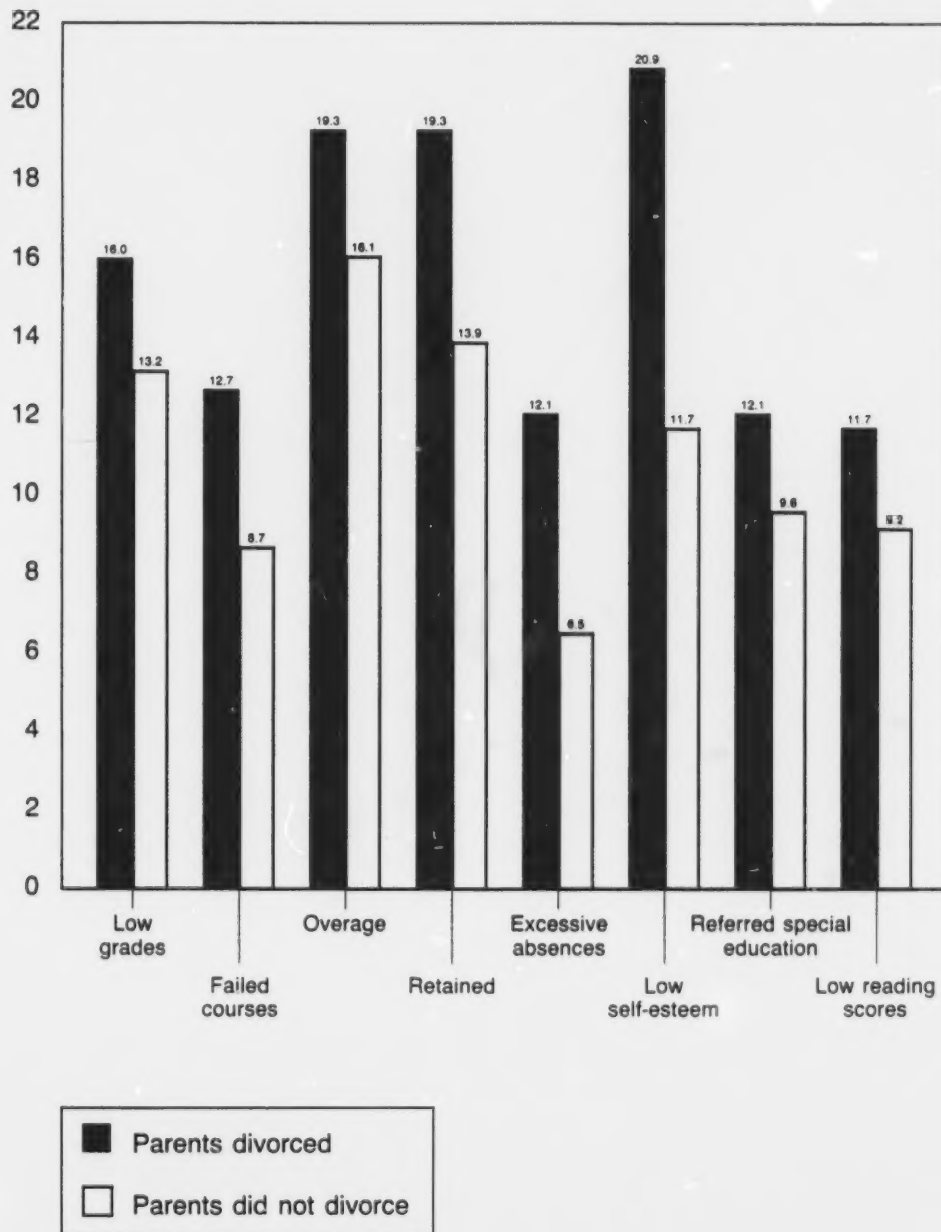


Chart 69

Suspended from school (N = 1,290) vs. nonsuspended (N = 20,416)
Compared on family tragedy risk items (percent)

(Data from table 10)

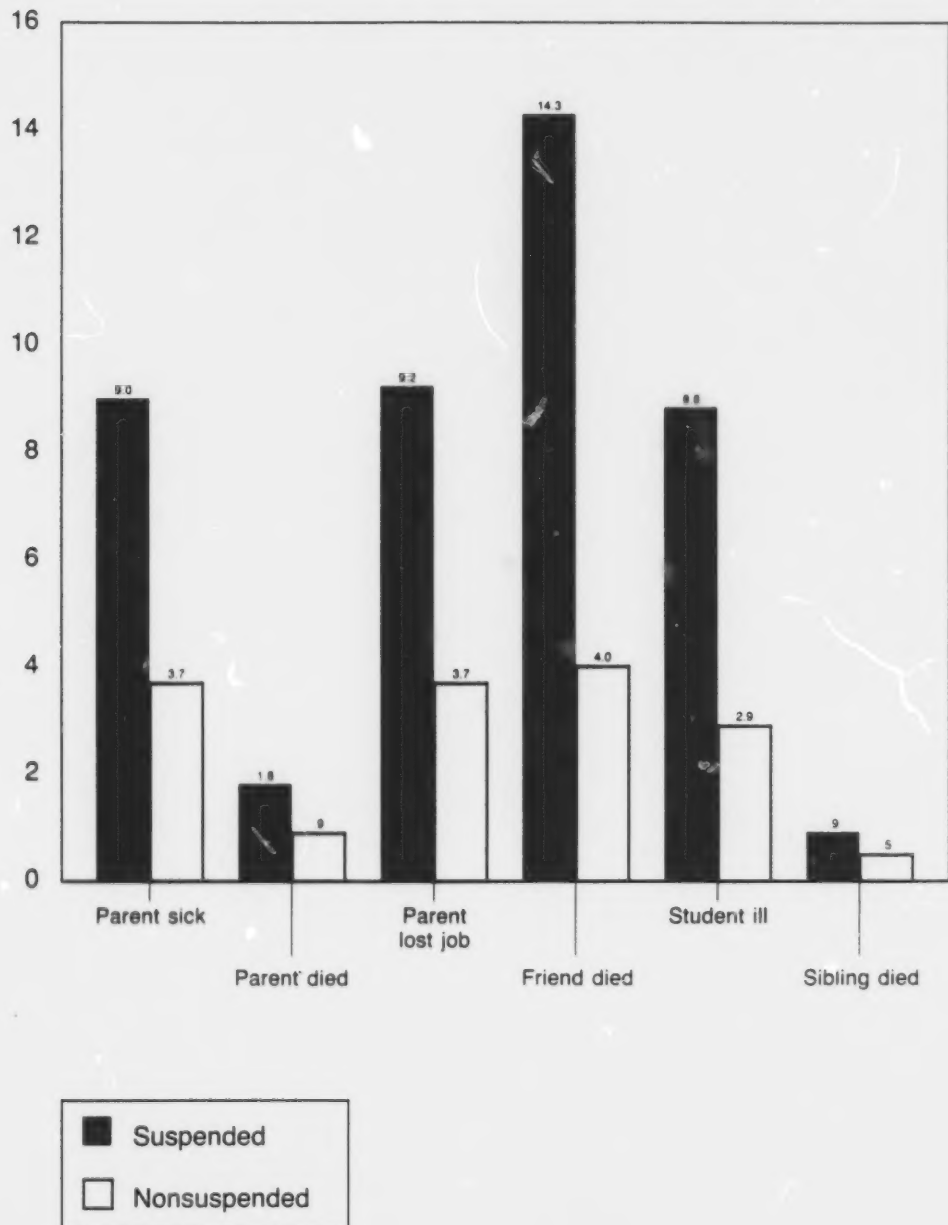


Chart 70

Attempted suicide (N = 176) vs. did not attempt suicide (N = 21,530)
Compared on family tragedy risk items (percent)

(Data from table 11)

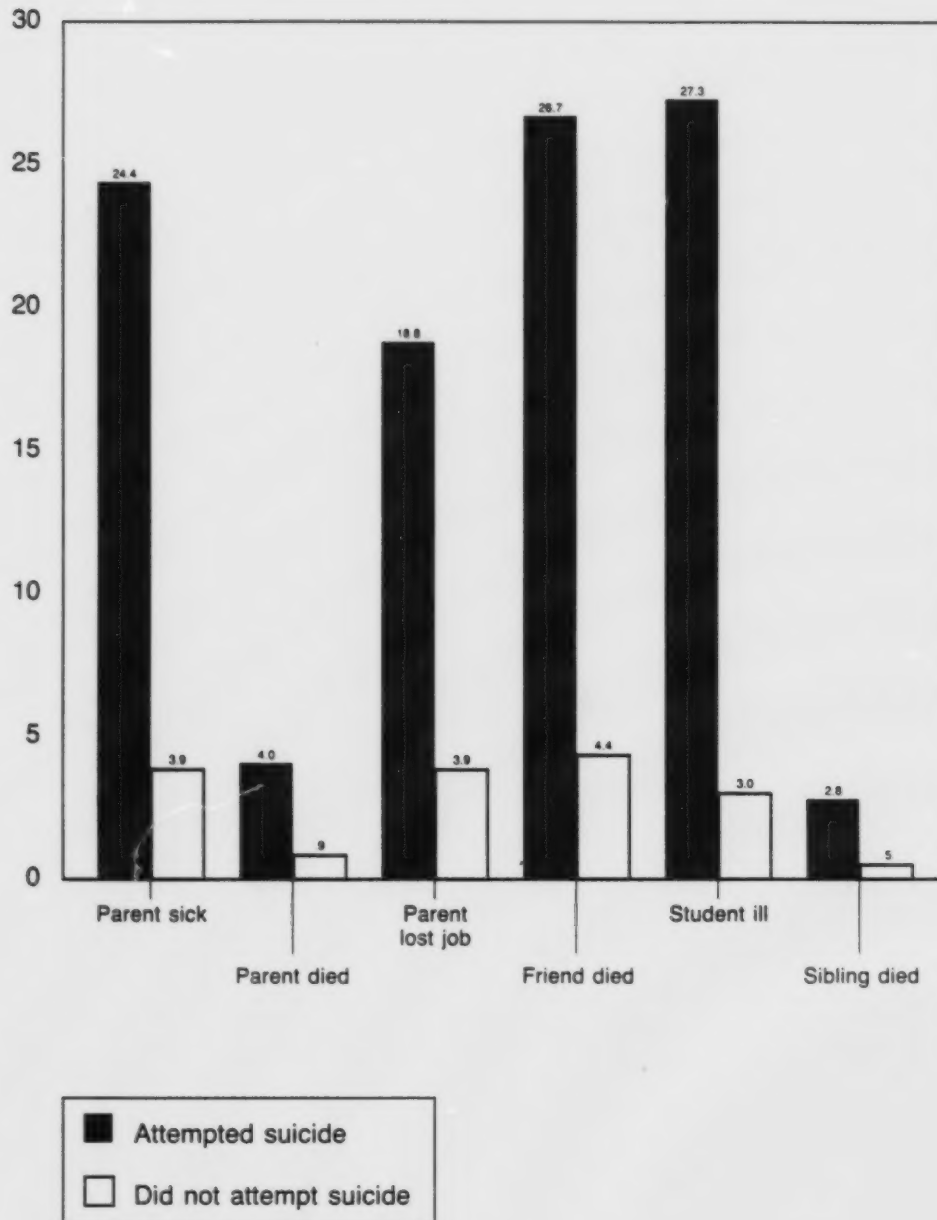


Chart 71

Involved in pregnancy (N = 124) vs. not involved in pregnancy (N = 21,582)
Compared on family tragedy risk items (percent)

(Data from table 12)

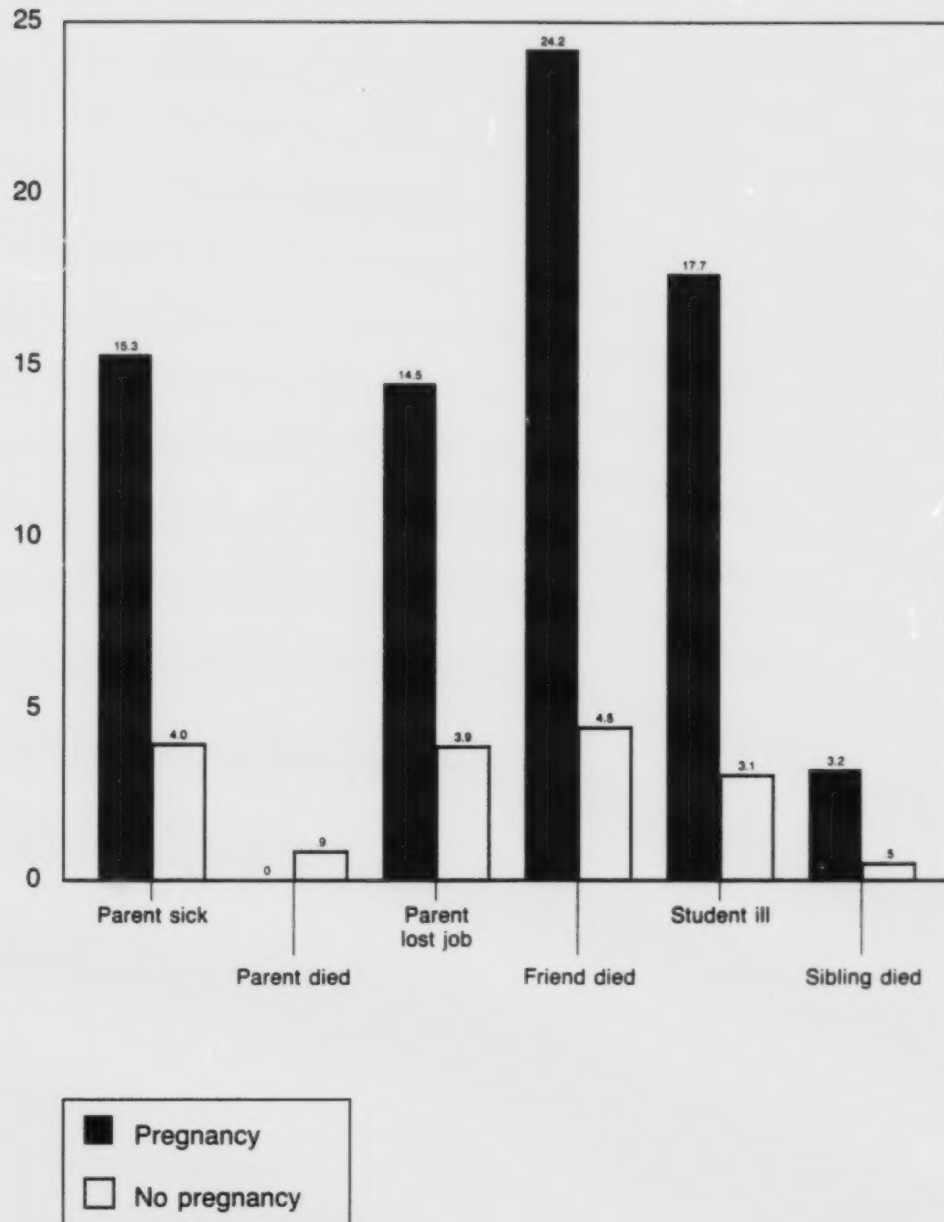


Chart 72

Student sold drugs (N = 122) vs. student did not sell drugs (N = 21,584)
Compared on family tragedy risk items (percent)

(Data from table 13)

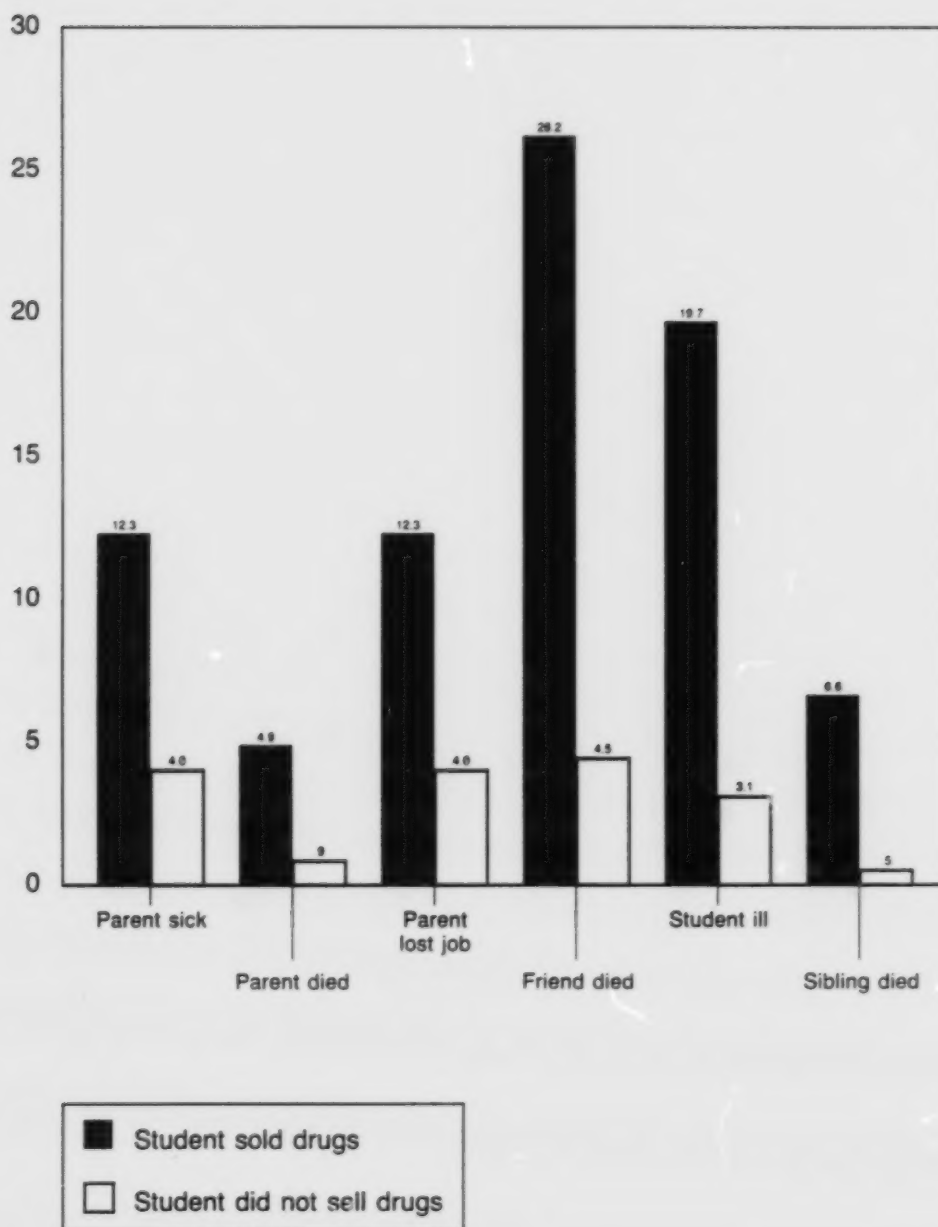


Chart 73

Student used drugs (N = 632) vs. student did not use drugs (N = 21,074)
 Compared on family tragedy risk items (percent)

(Data from table 14)

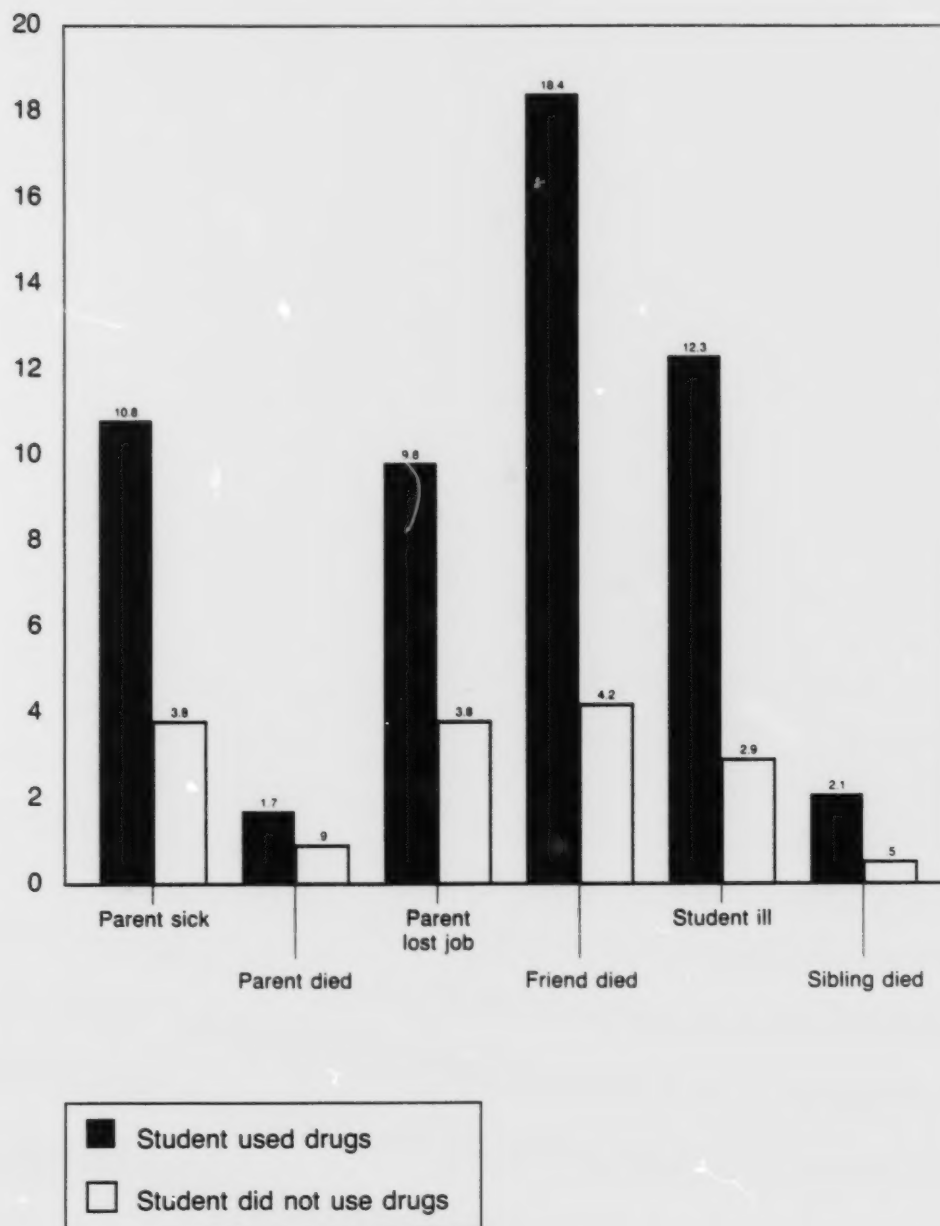


Chart 74

Family used drugs (N = 749) vs. family did not use drugs (N = 20,957)
Compared on family tragedy risk items (percent)

(Data from table 15)

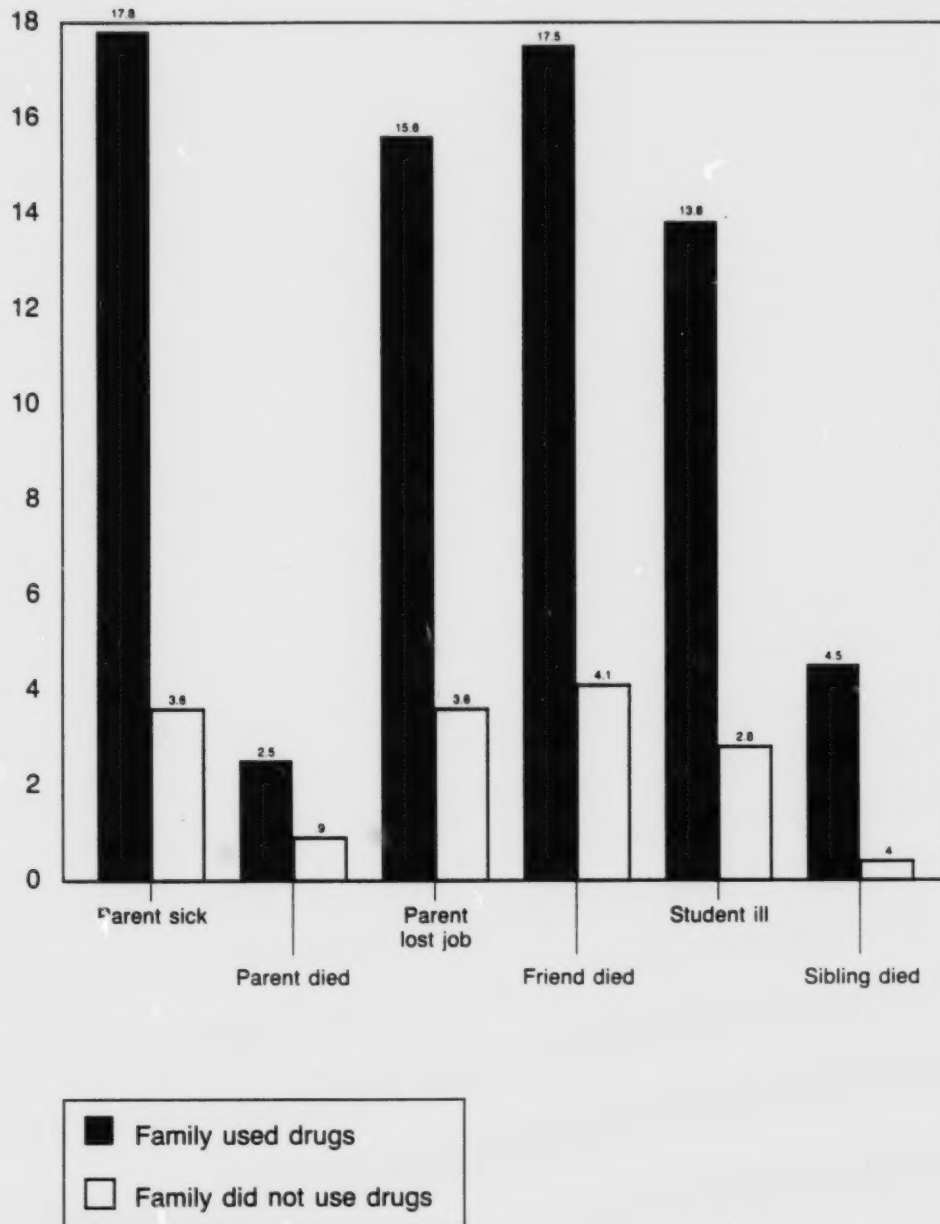


Chart 75

Student used alcohol (N = 1,002) vs. student did not use alcohol (N = 20,704)
Compared on family tragedy risk items (percent)

(Data from table 16)

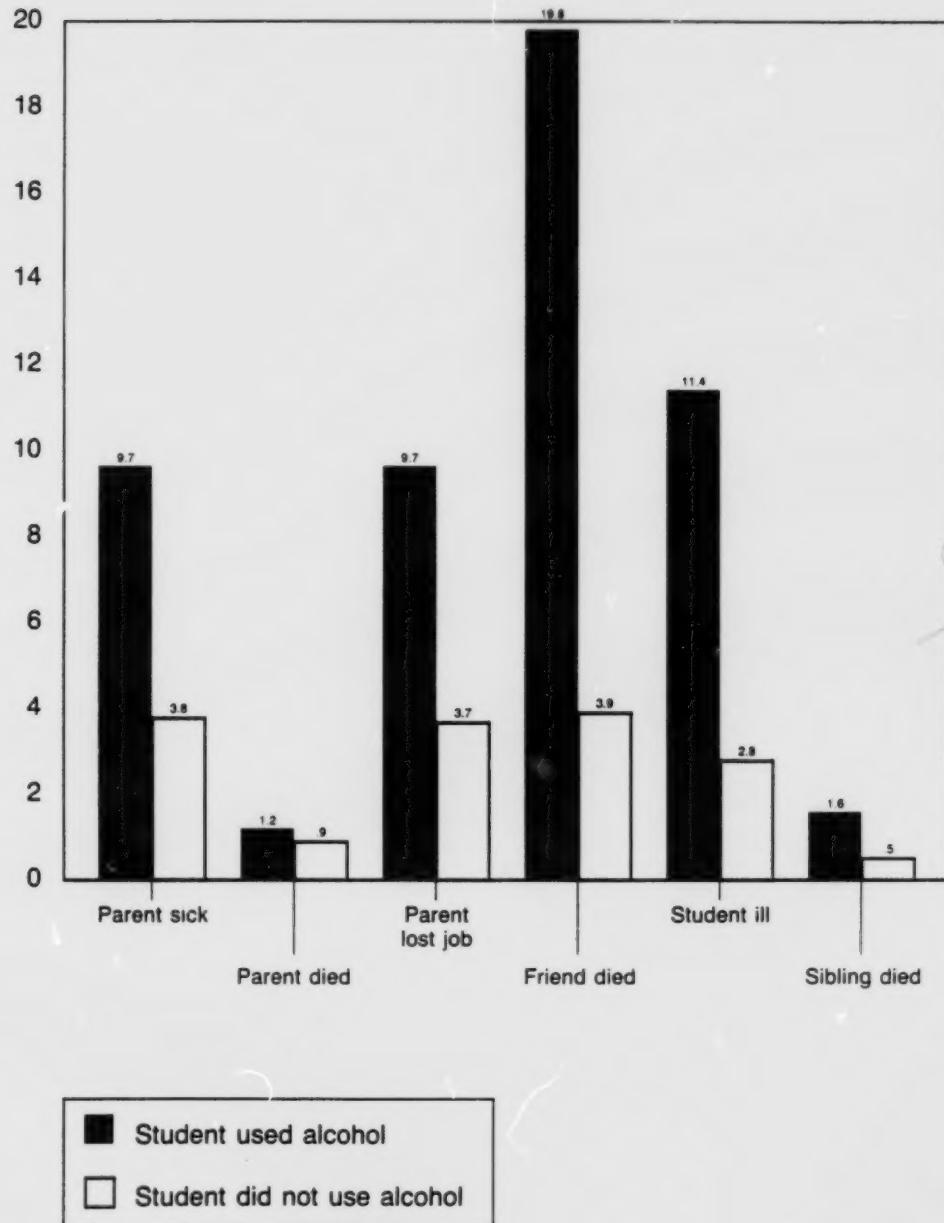


Chart 76

Parent alcoholic (N = 784) vs. parent not alcoholic (N = 20,922)
Compared on family tragedy risk items (percent)

(Data from table 17)

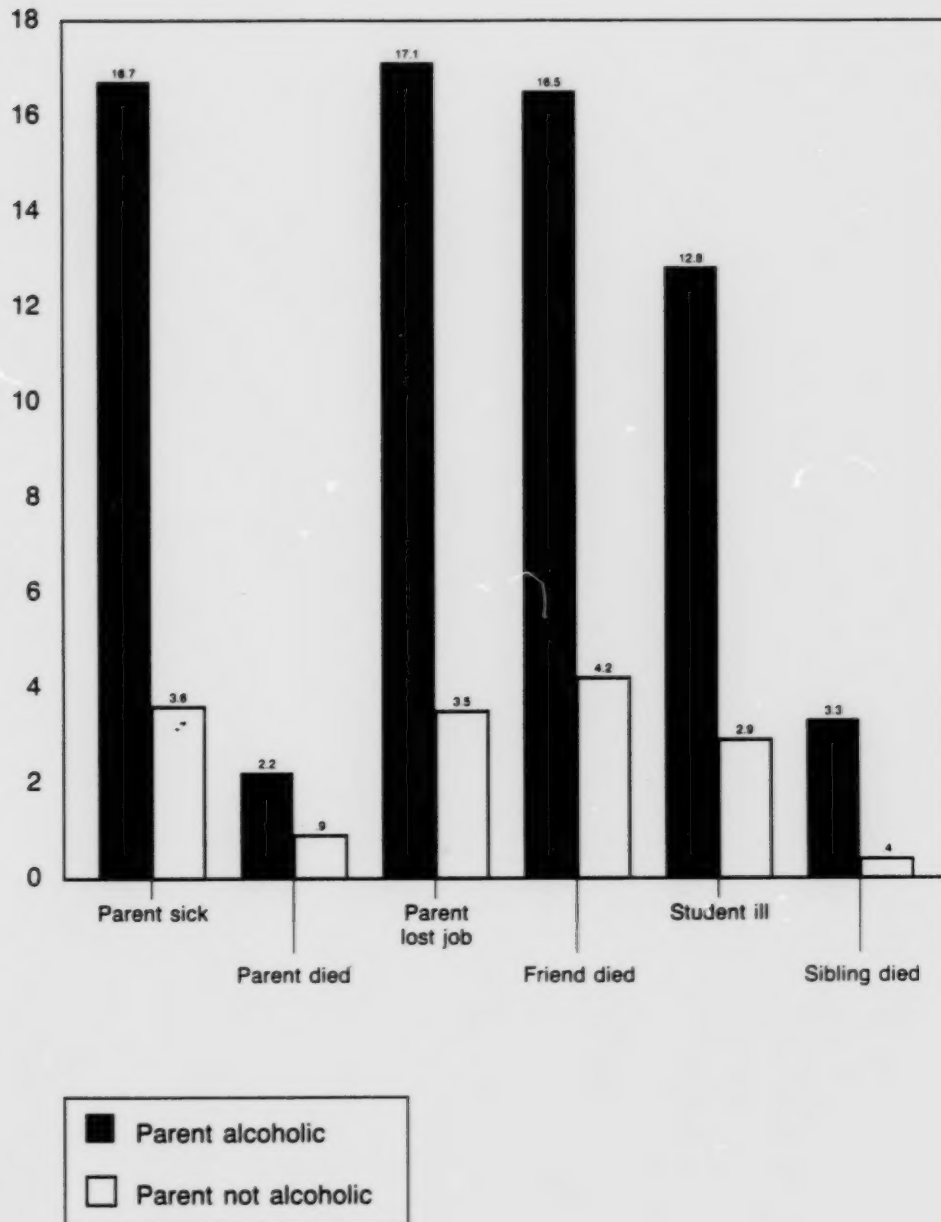


Chart 77

Student was arrested (N = 280) vs. student not arrested (N = 21,426)
Compared on family tragedy risk items (percent)

(Data from table 18)

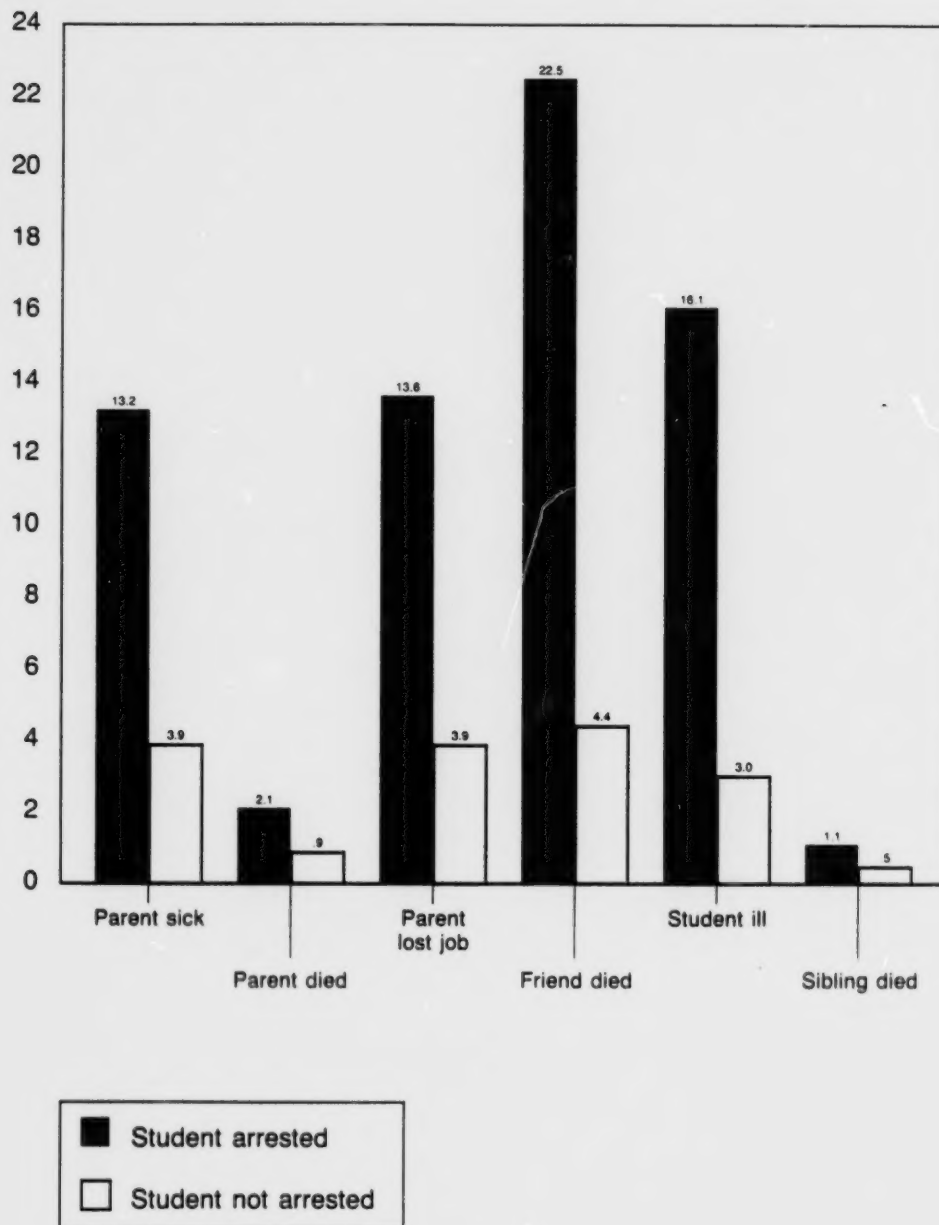


Chart 78

Student was abused (N = 406) vs. student was not abused (N = 21,300)
Compared on family tragedy risk items (percent)

(Data from table 19)

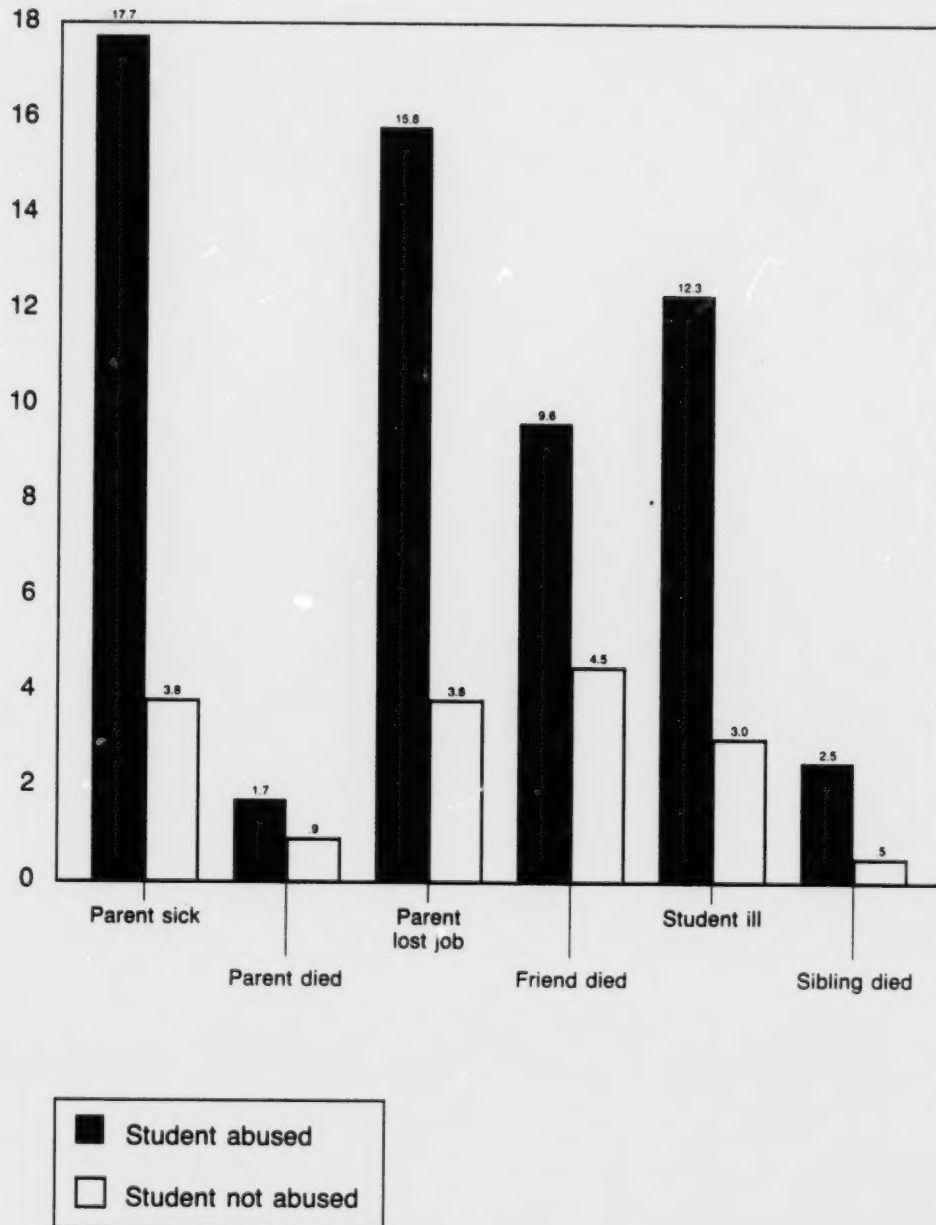


Chart 79

Low grades in school (N = 2,906) vs. grades not low (N = 18,800)
Compared on family tragedy risk items (percent)

(Data from table 20)

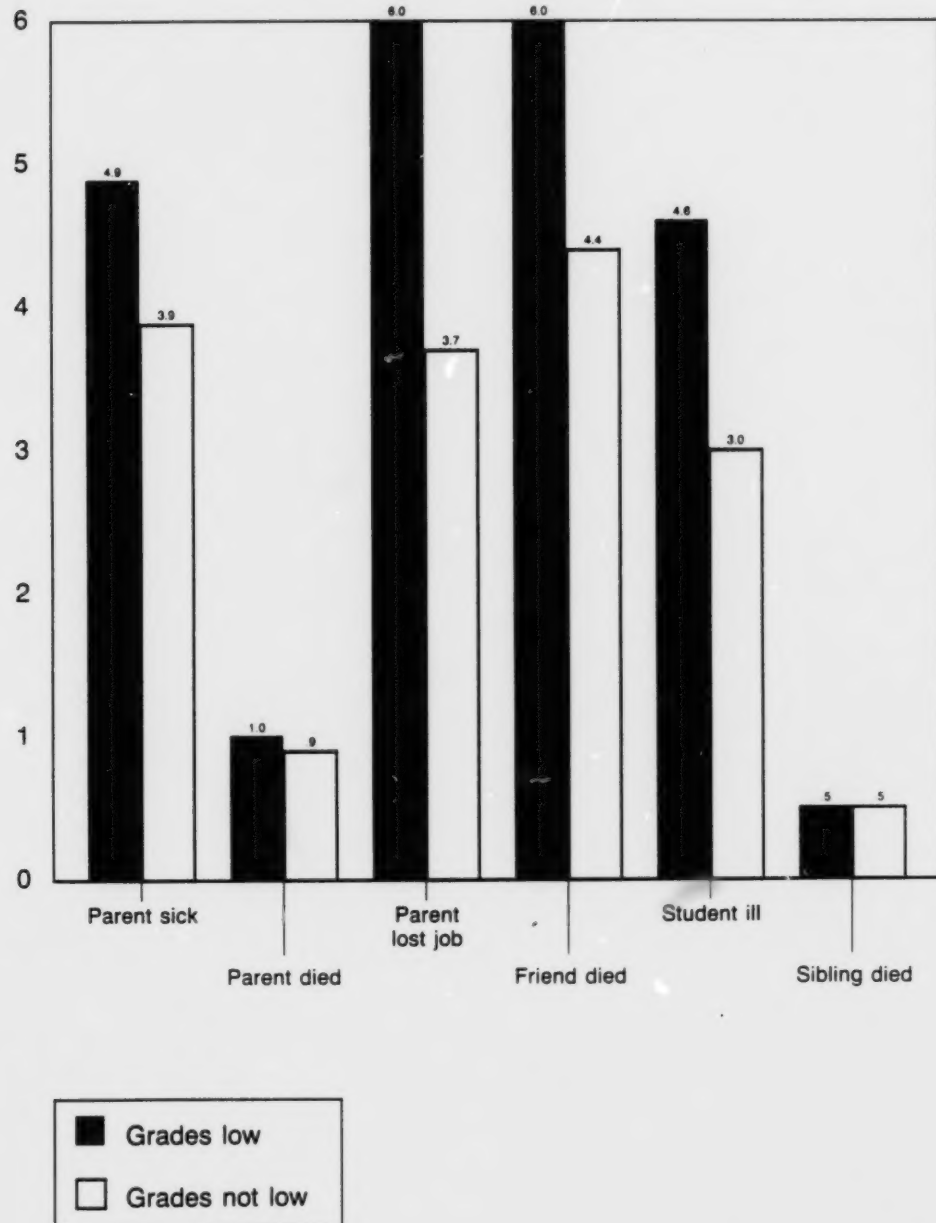


Chart 80

Student failed courses (N = 1,944) vs. student did not fail (N = 19,762)
Compared on family tragedy risk items (percent)

(Data from table 21)

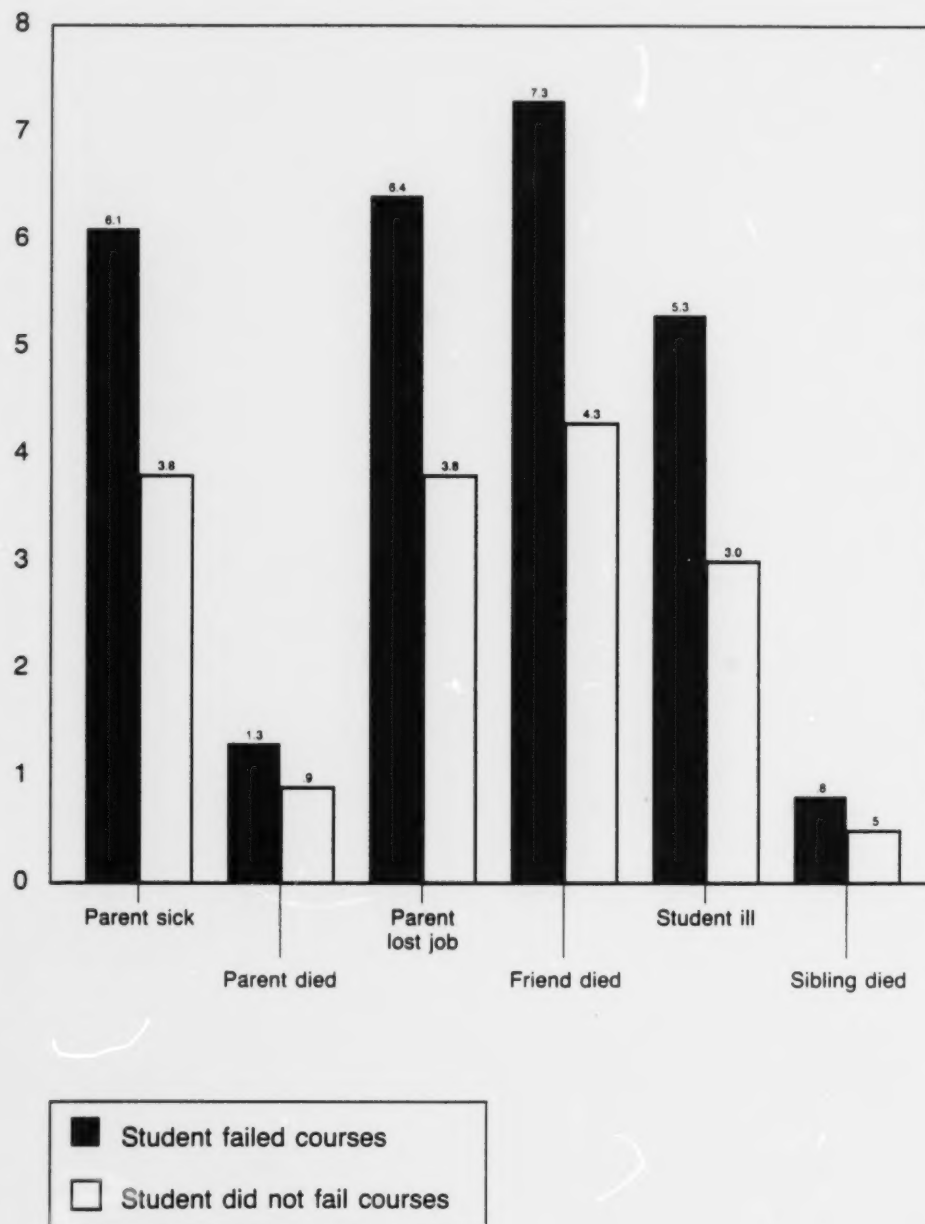


Chart 81

Student overage (N = 3,517) vs. student not overage (N = 18,189)
Compared on family tragedy risk items (percent)

(Data from table 22)

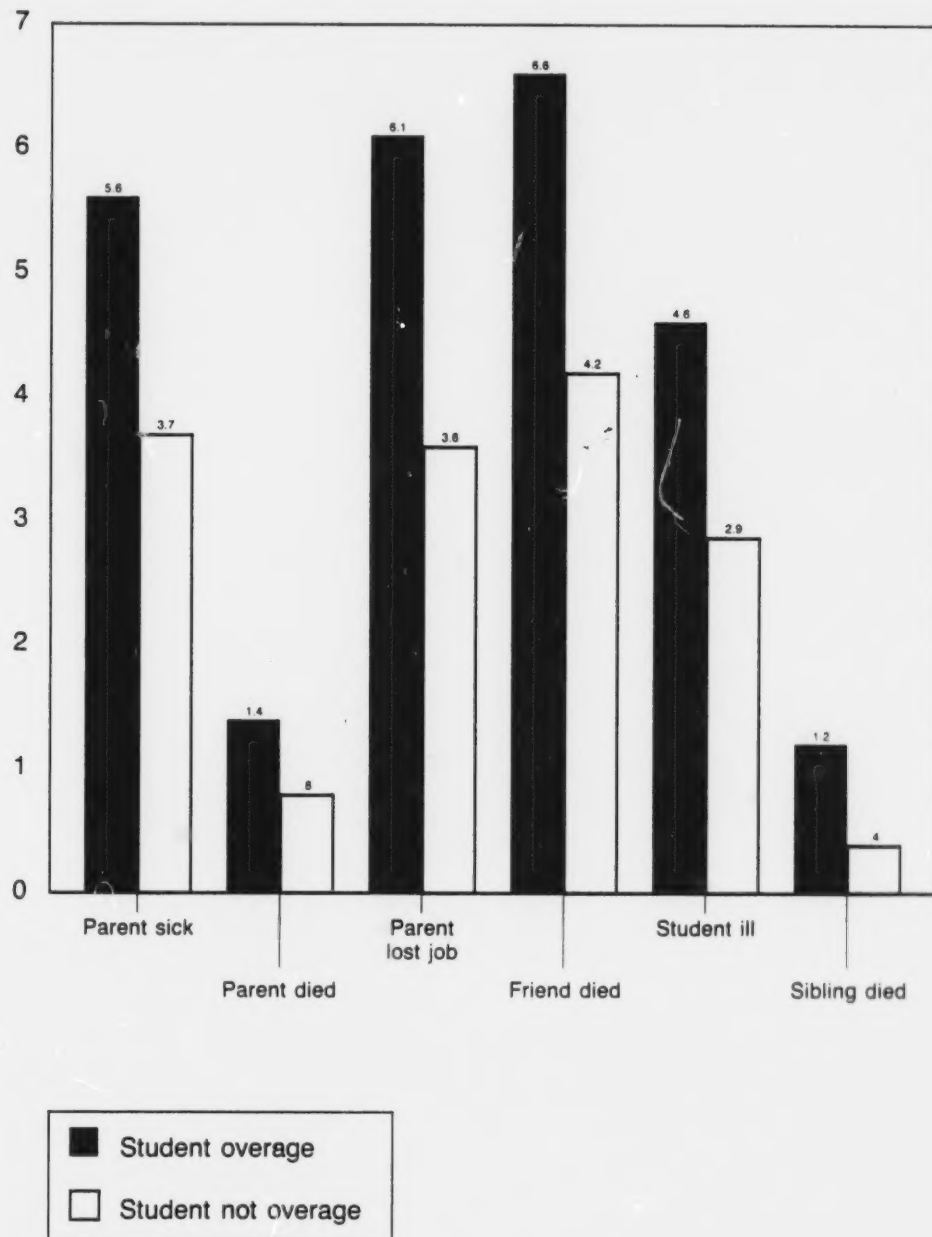


Chart 82

Student retained (N = 3,100) vs. student not retained (N = 18,606)
Compared on family tragedy risk items (percent)

(Data from table 23)

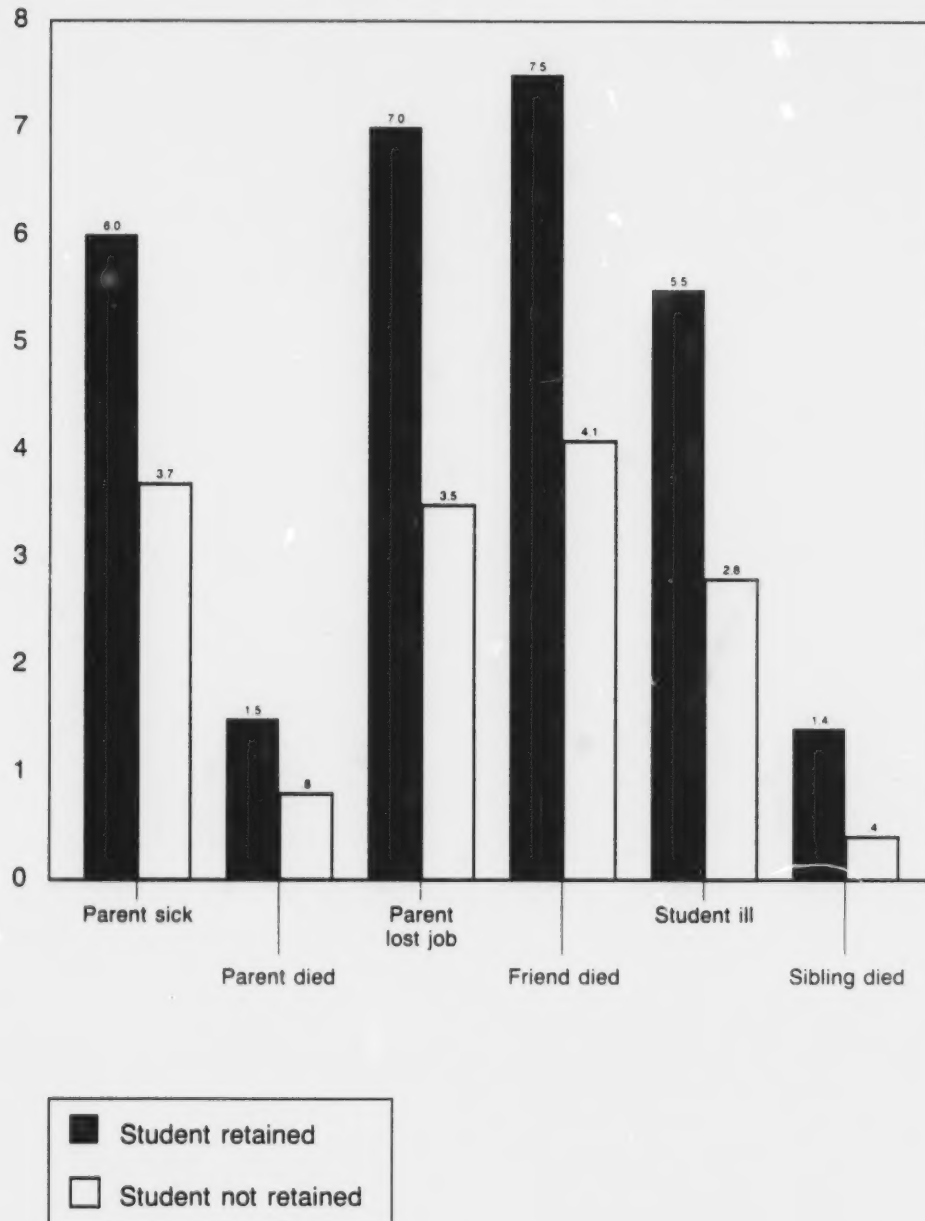


Chart 83

Excessive absences (N = 1,497) vs. no excessive absences (N = 20,209)
Compared on family tragedy risk items (percent)

(Data from table 24)

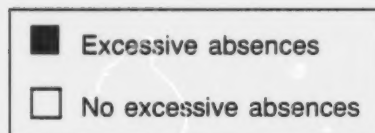
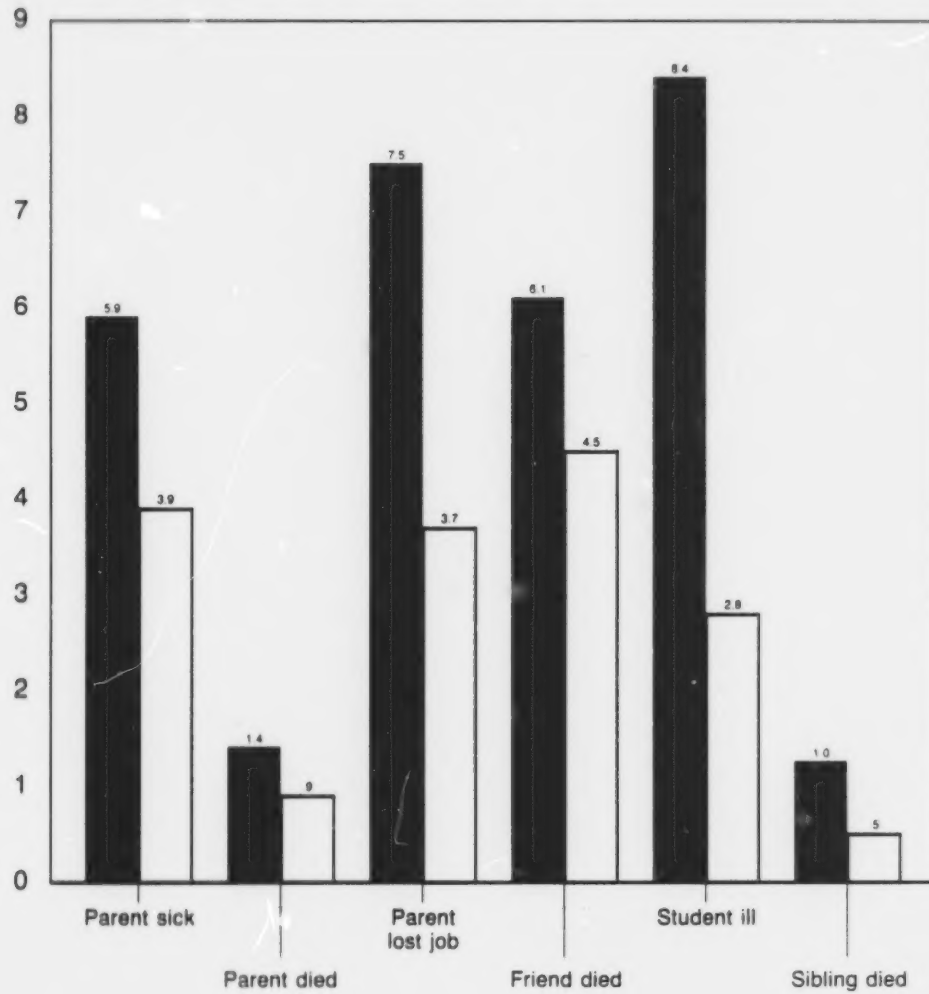


Chart 84

Low self-esteem (N = 2,686) vs. not low self-esteem (N = 19,020)
Compared on family tragedy risk items (percent)

(Data from table 25)

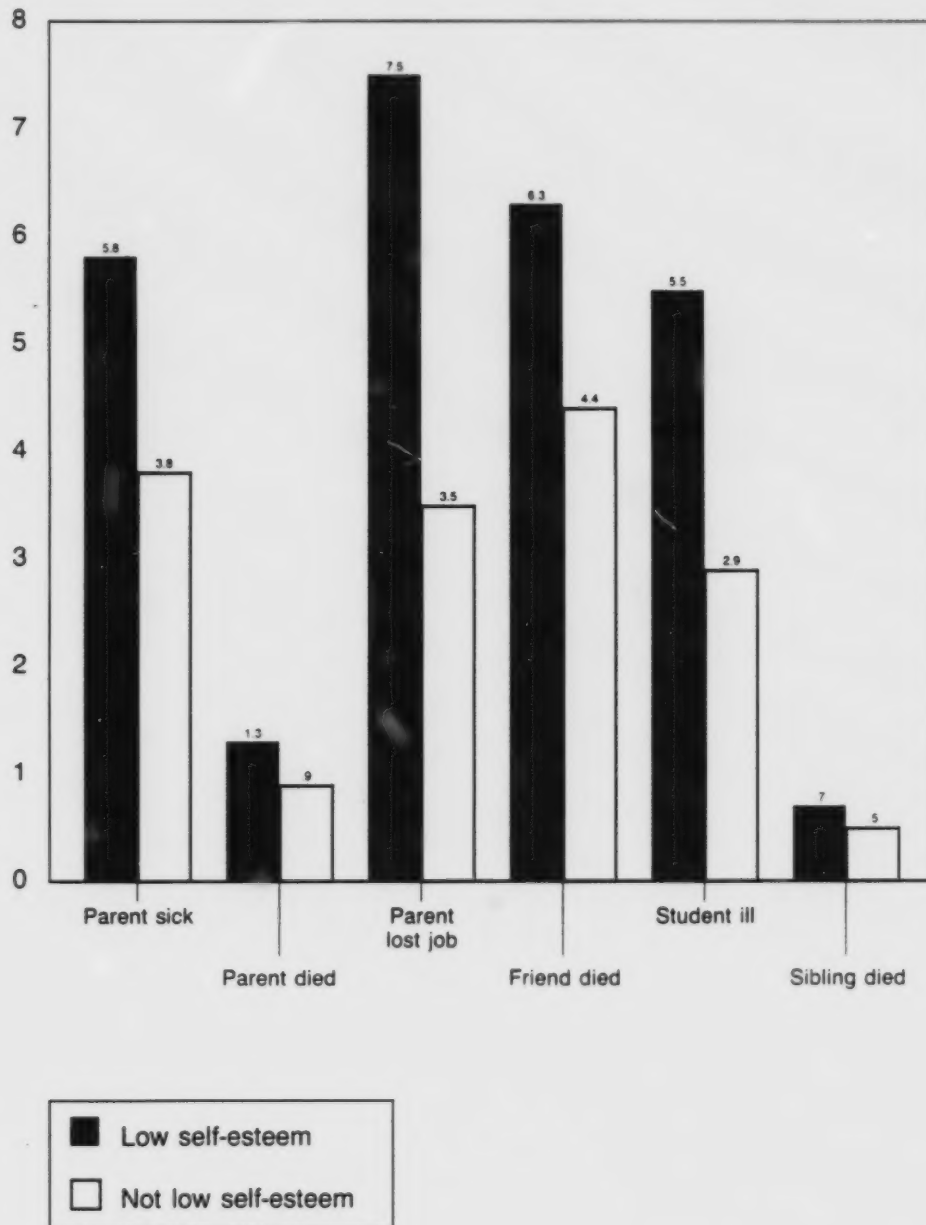


Chart 85

Referred to special education (N = 2,128) vs. not referred to special education (N = 19,578)
Compared on family tragedy risk items (percent)

(Data from table 26)

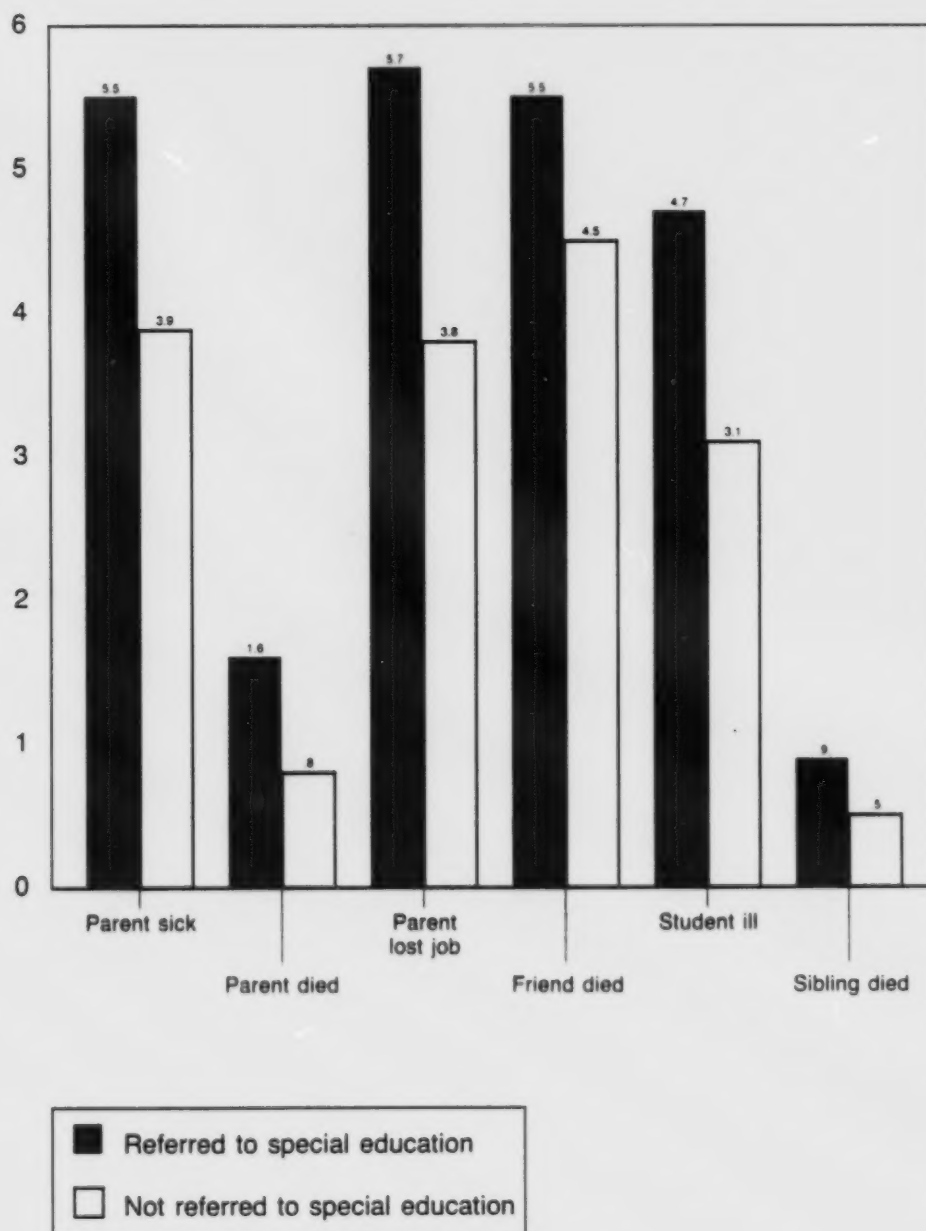


Chart 86

Low reading scores (N = 2,037) vs. not low reading scores (N = 19,669)
Compared on family tragedy risk items (percent)

(Data from table 27)

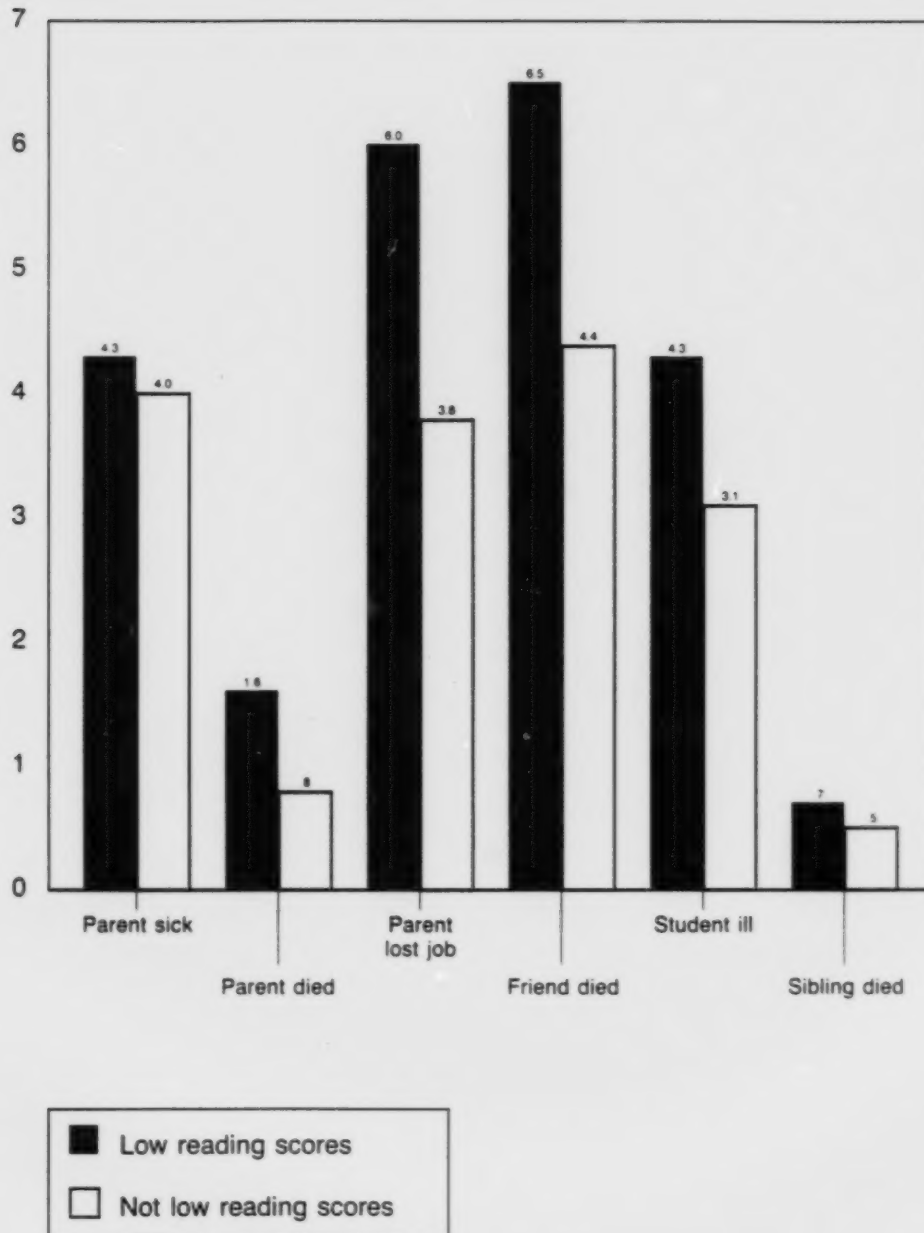


Chart 87

Parent sick in last year (N = 878) vs. parent not sick in last year (N = 20,828)
Compared on family tragedy risk items (percent)

(Data from table 28)

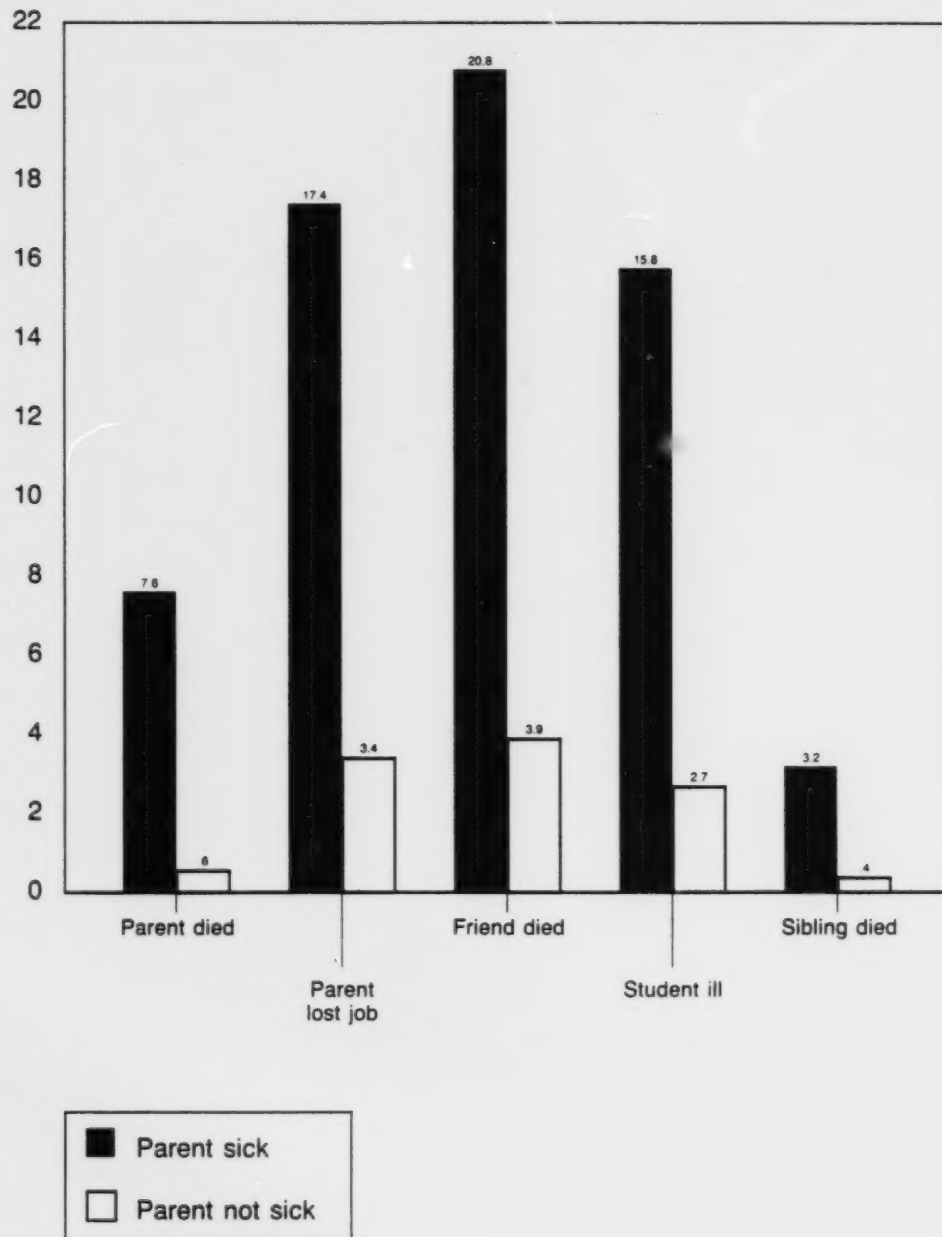


Chart 88

Parent died last year (N = 198) vs. parent did not die last year (N = 21,508)
Compared on family tragedy risk items (percent)

(Data from table 29)

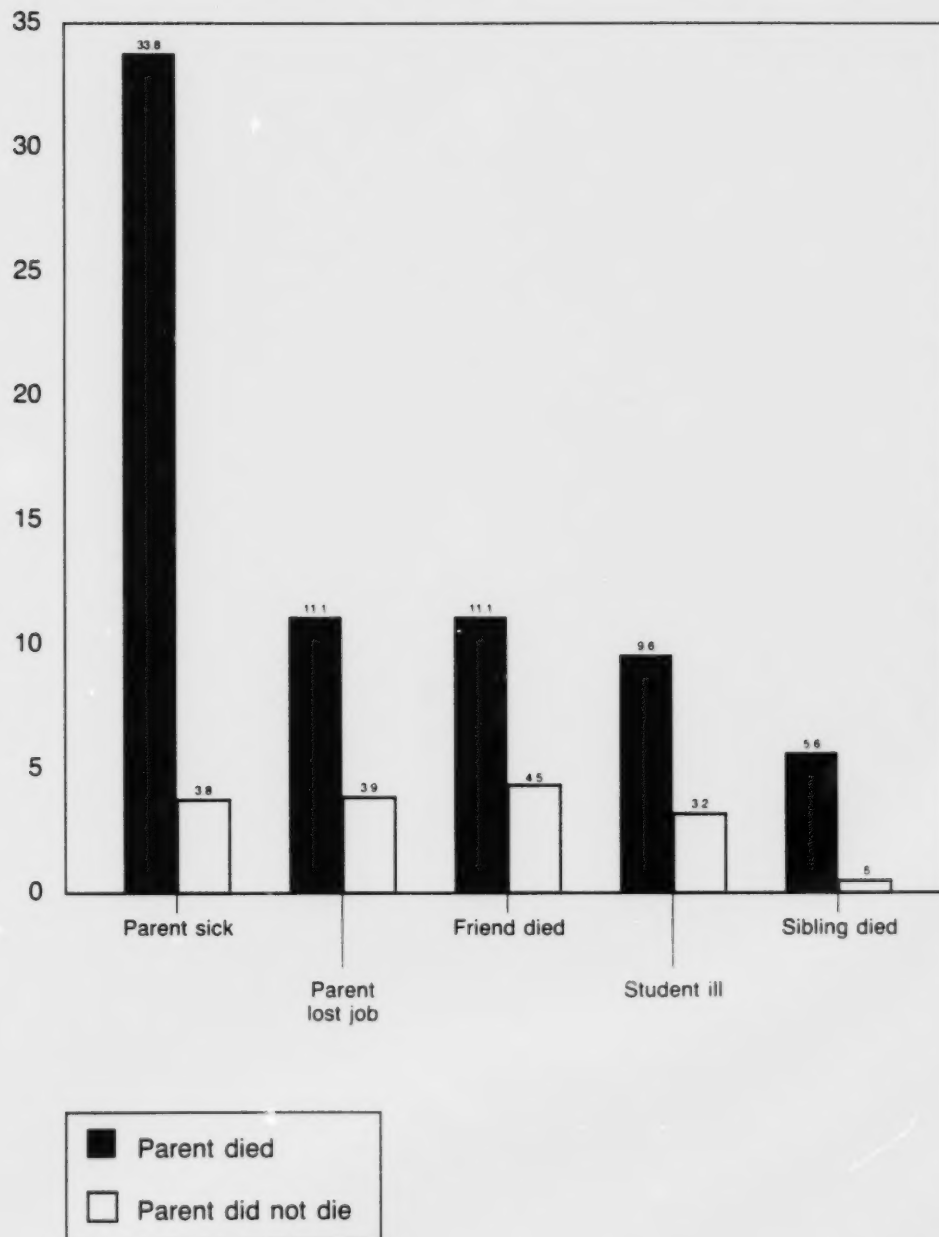


Chart 89

Parent lost job (N = 869) vs. parent did not lose job (N = 20,837)
Compared on family tragedy risk items (percent)

(Data from table 30)

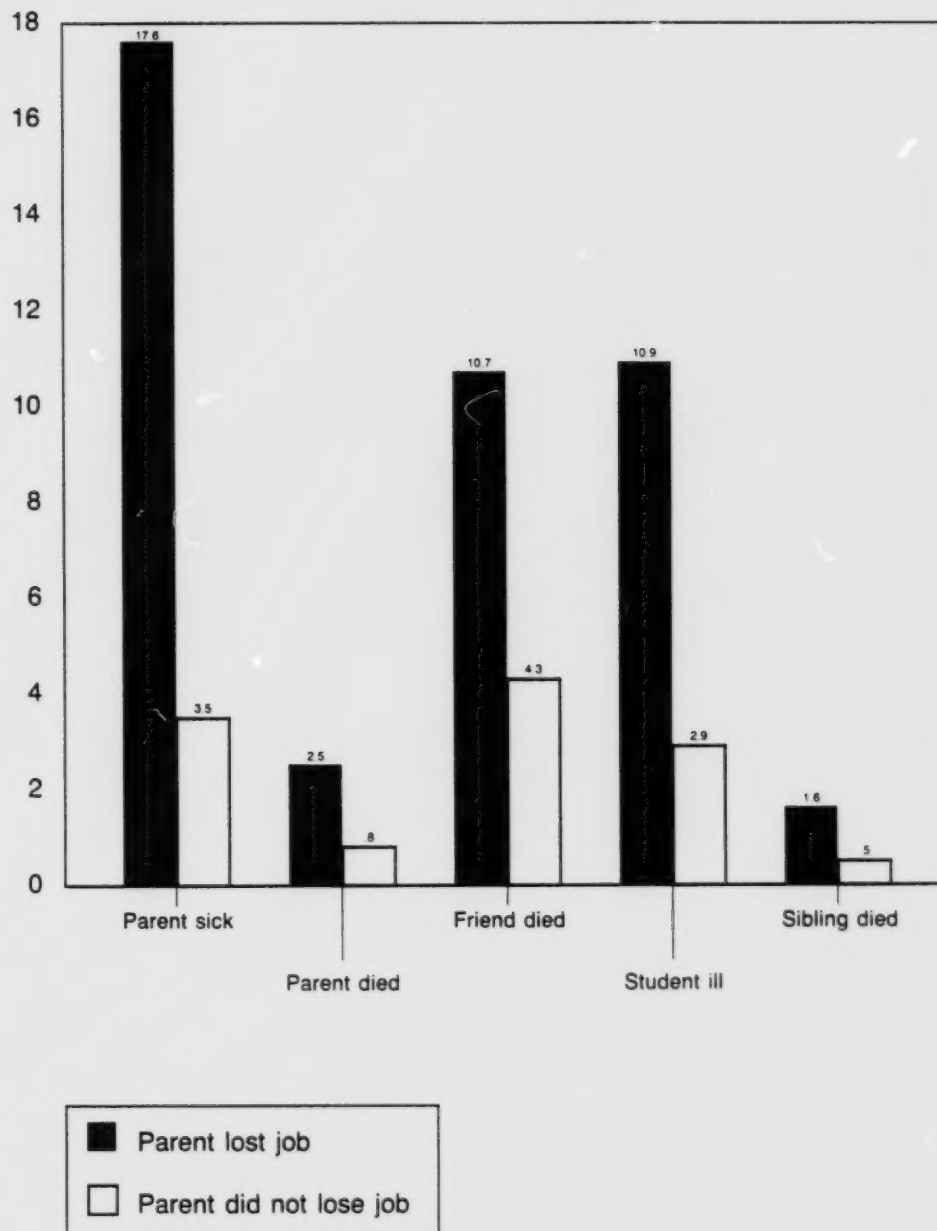


Chart 90

Friend died last year (N = 998) vs. friend did not die last year (N = 20,708)
Compared on family tragedy risk items (percent)

(Data from table 31)

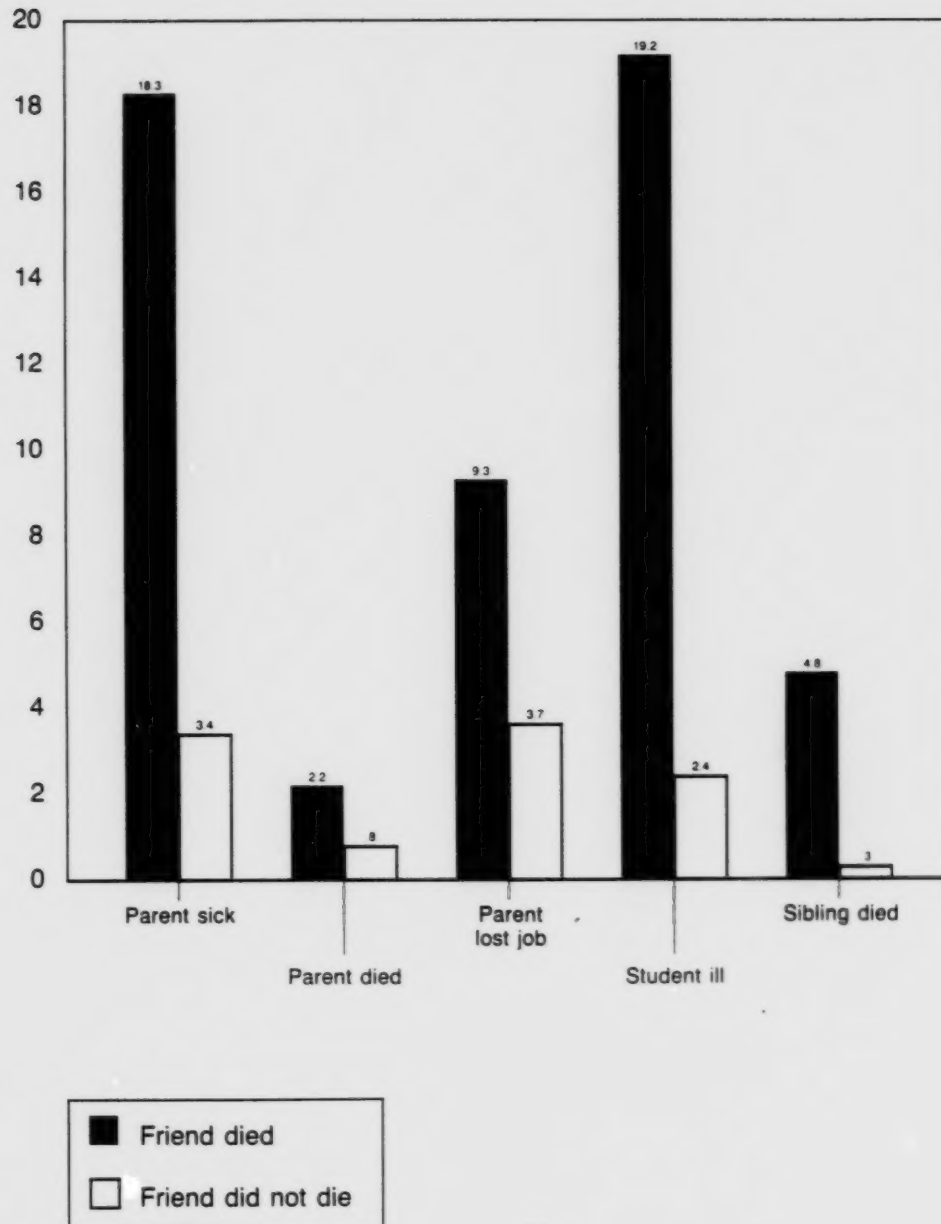


Chart 91

Student seriously ill in last year (N = 697) vs. student not ill (N = 21,009)
Compared on family tragedy risk items (percent)

(Data from table 32)

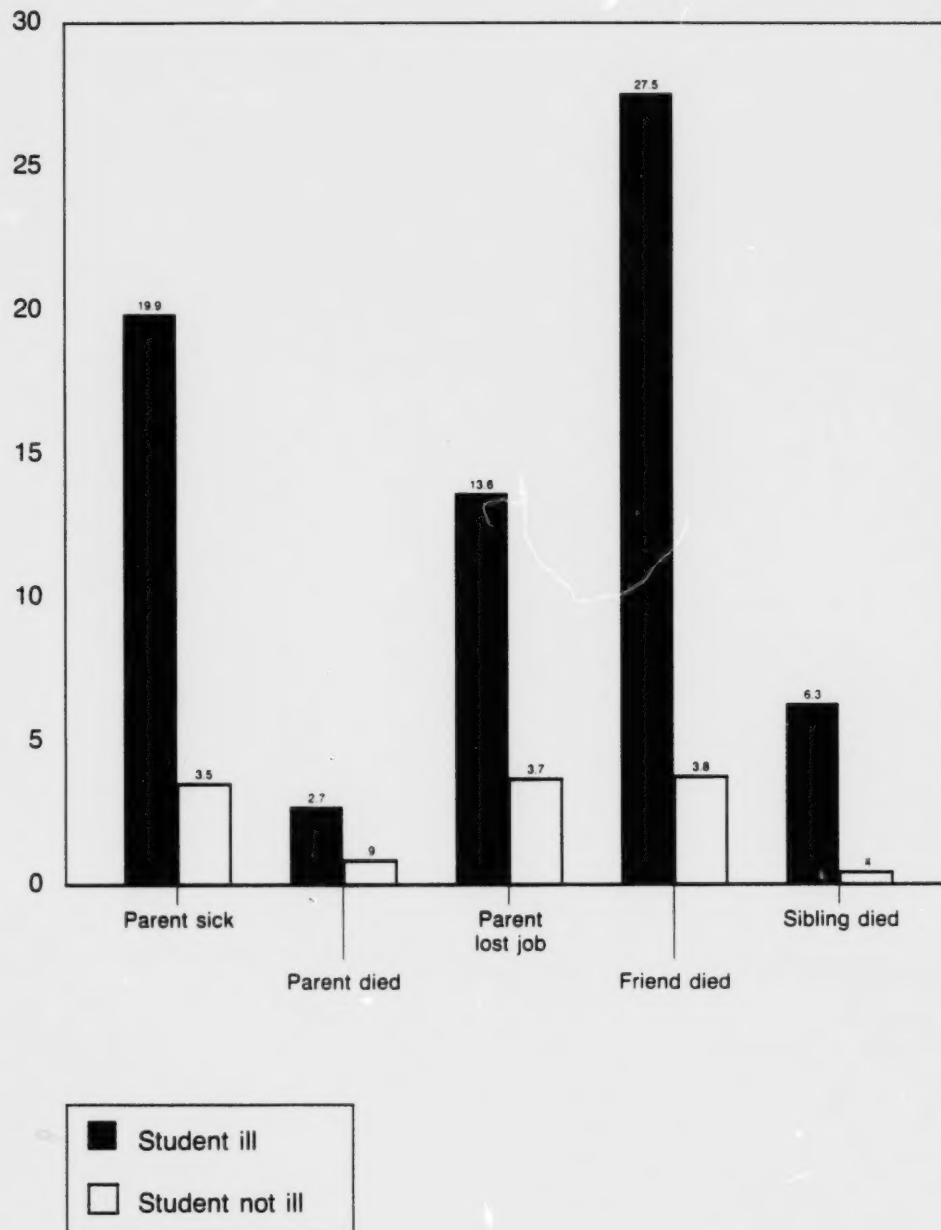


Chart 92

Sibling died in last year (N = 118) vs. sibling did not die (N = 21,588)
Compared on family tragedy risk items (percent)

(Data from table 33)

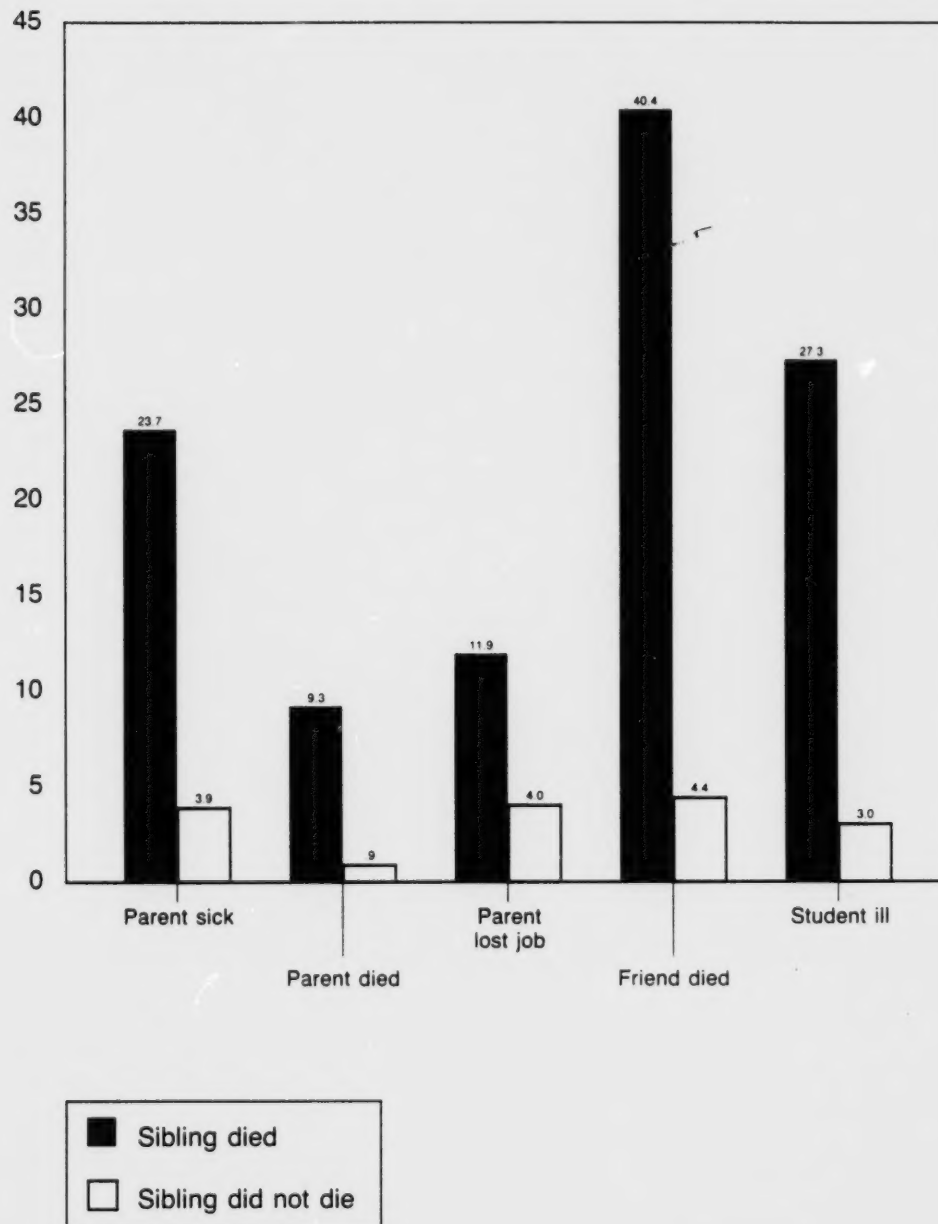


Chart 93

Father has low-level job (N = 3,659) vs. father does not have low-level job (N = 18,047)
Compared on family tragedy risk items (percent)

(Data from table 34)

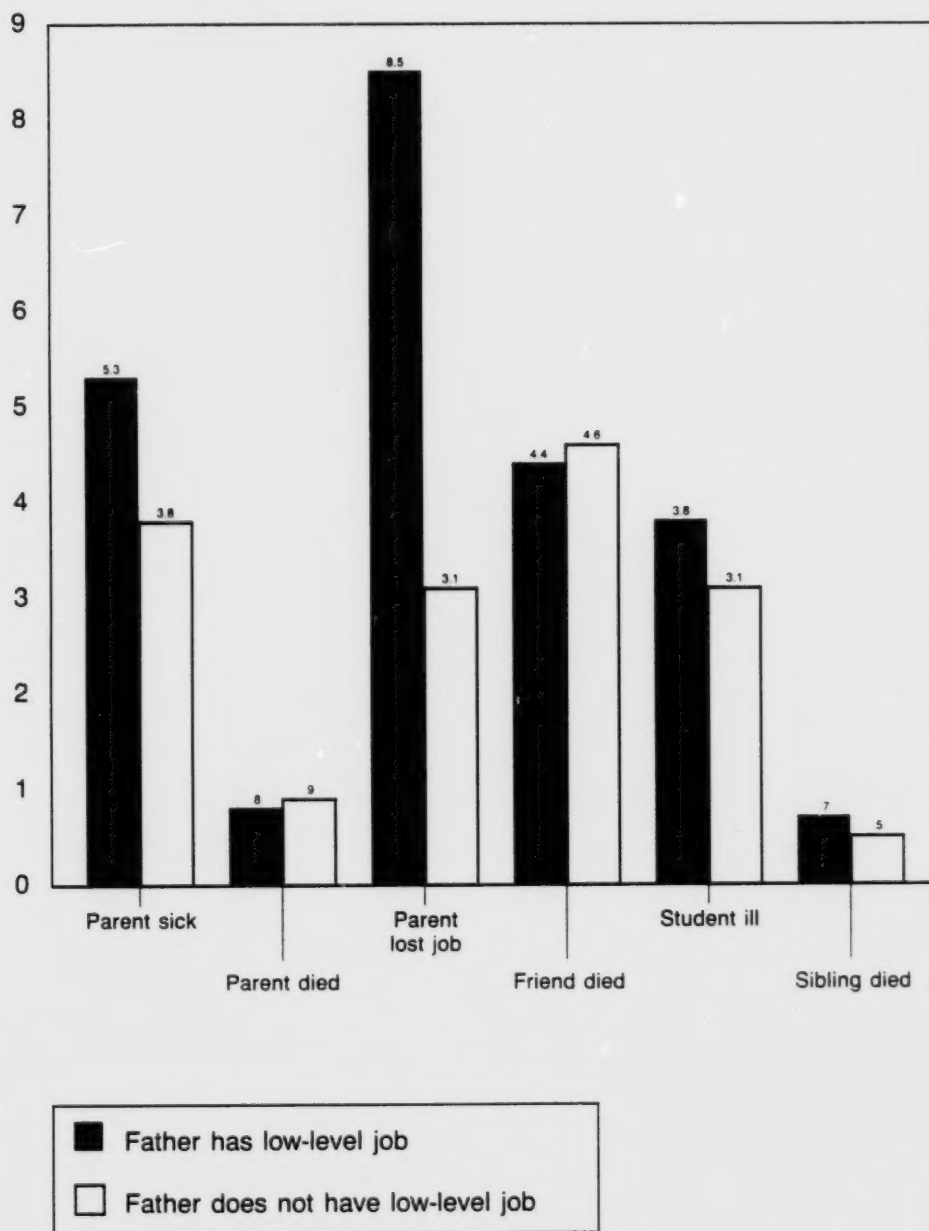


Chart 94

Father not graduate (N = 1,680) vs. father did graduate (N = 20,026)
Compared on family tragedy risk items (percent)

(Data from table 35)

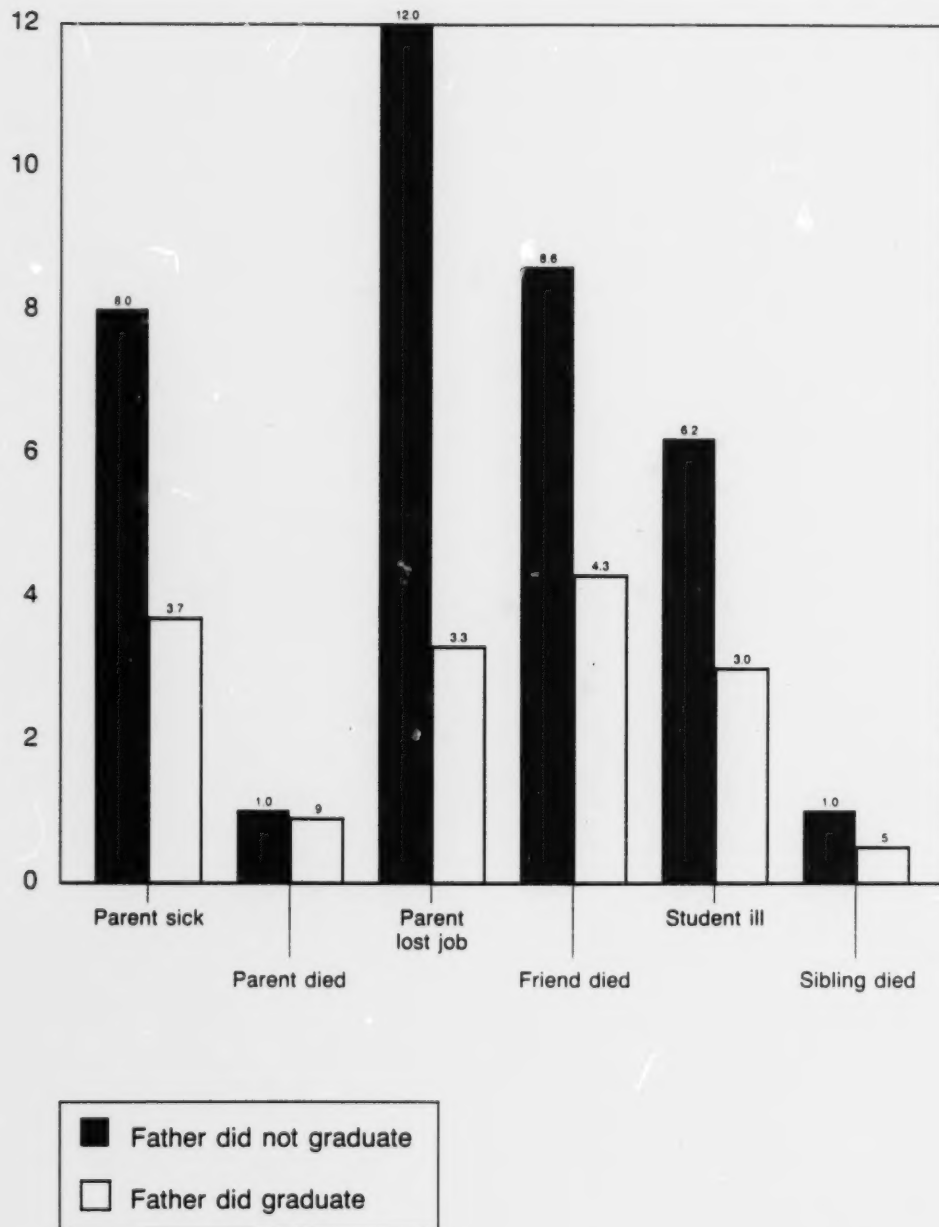


Chart 95

Mother has low-level job (N = 4,260) vs. mother does not have low-level job (N = 17,446)
Compared on family tragedy risk items (percent)

(Data from table 36)

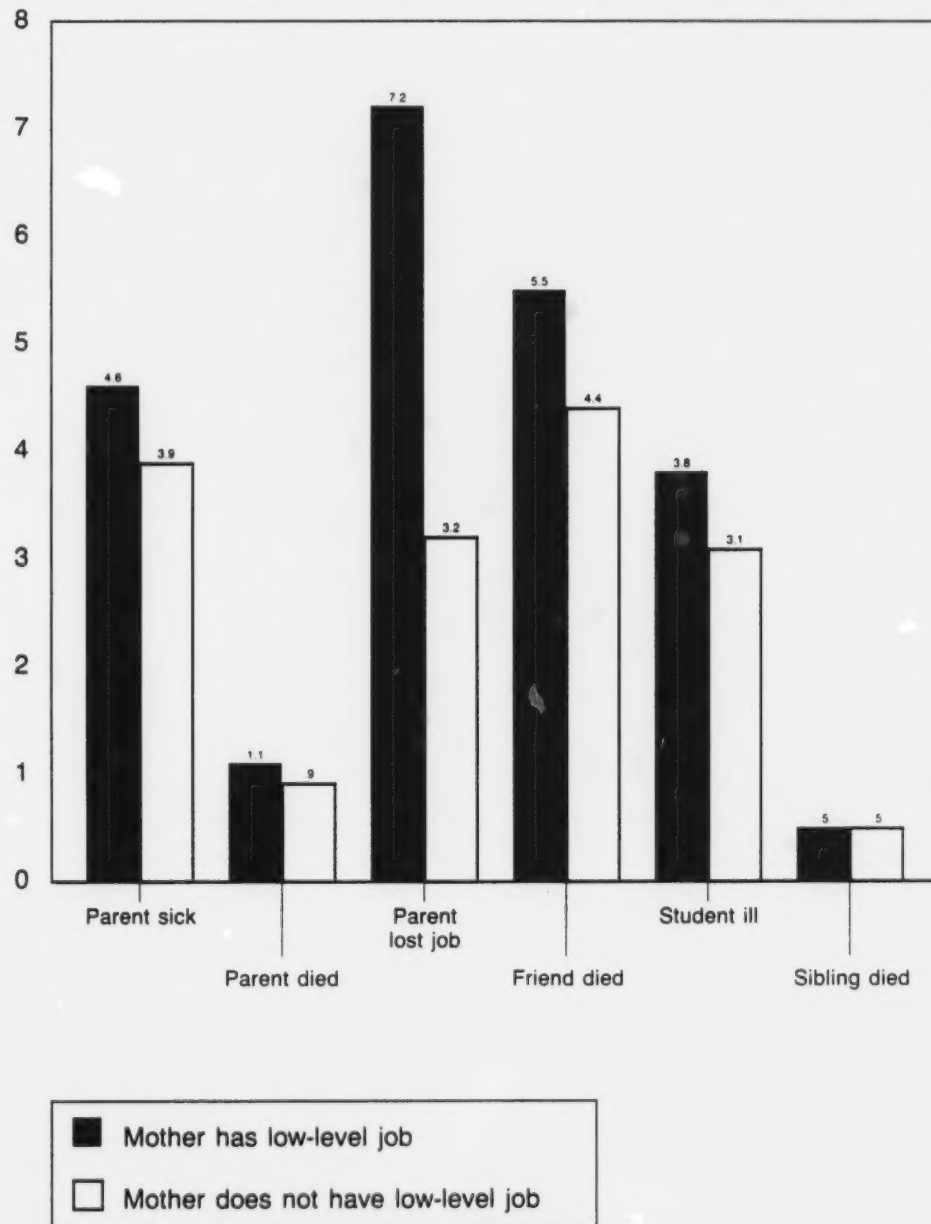


Chart 96

Mother not graduate (N = 1,809) vs. mother did graduate (N = 19,897)
Compared on family tragedy risk items (percent)

(Data from table 37)

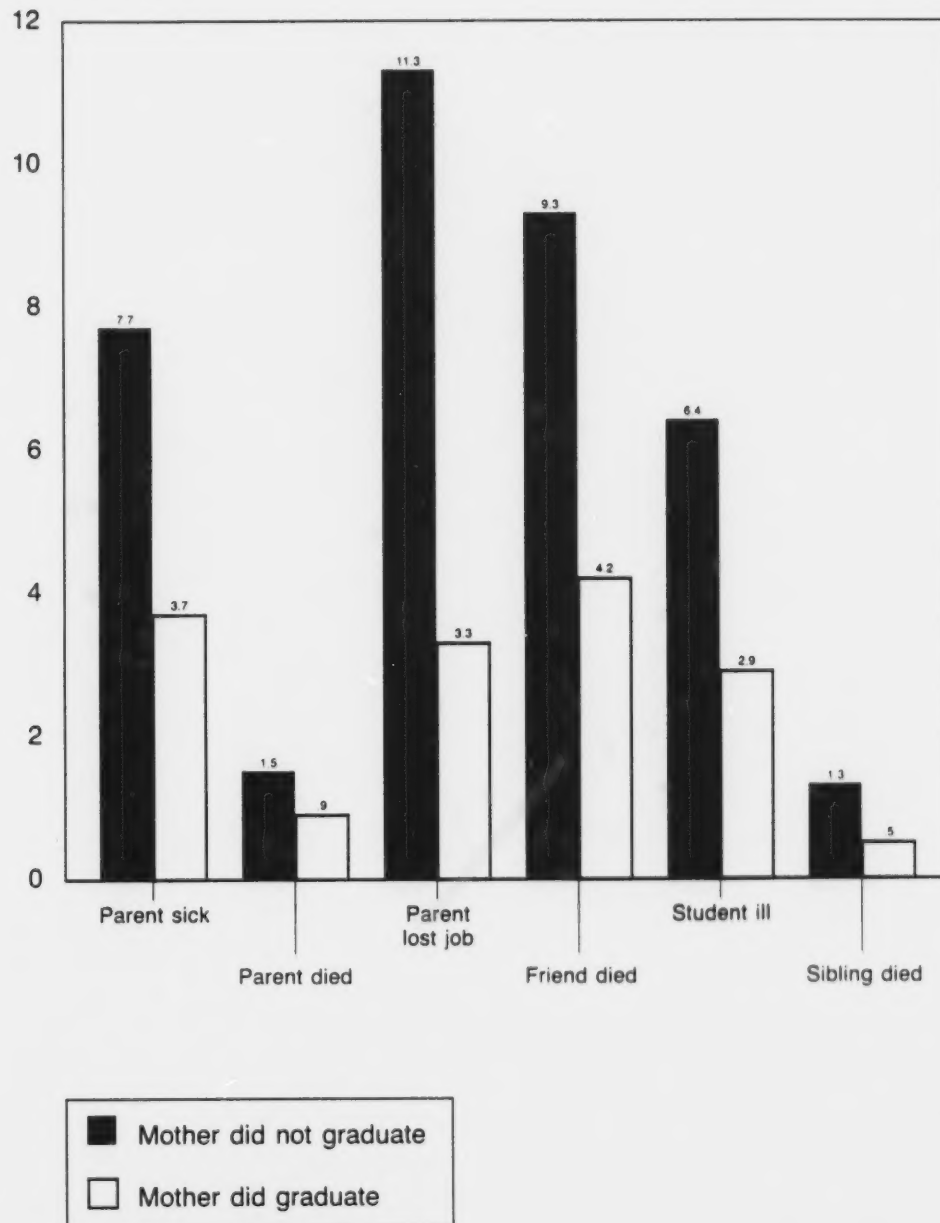
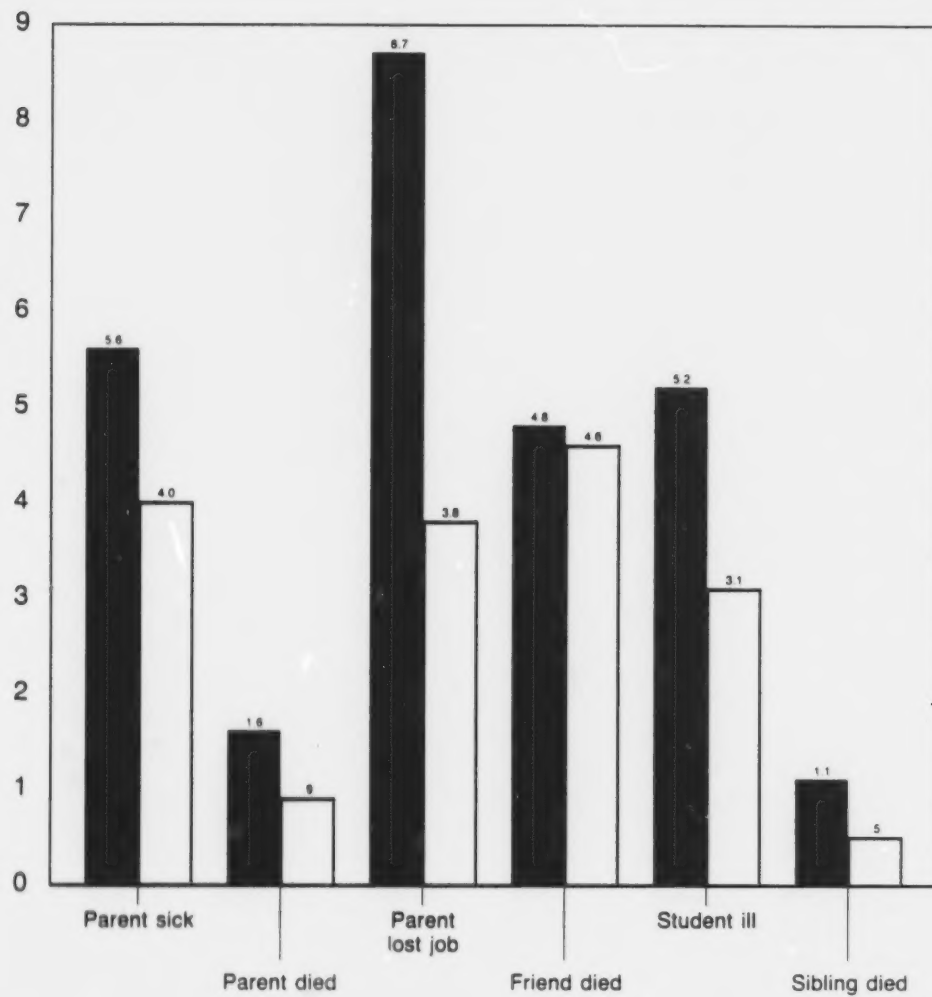


Chart 97

Parents' attitude negative (N = 1,089) vs. parents' attitude not negative (N = 20,617)
Compared on family tragedy risk items (percent)

(Data from table 38)



■ Parents' attitude negative
□ Parents' attitude not negative

Chart 98

No English spoken (N = 1,067) vs. English spoken (N = 20,639)
Compared on family tragedy risk items (percent)

(Data from table 39)

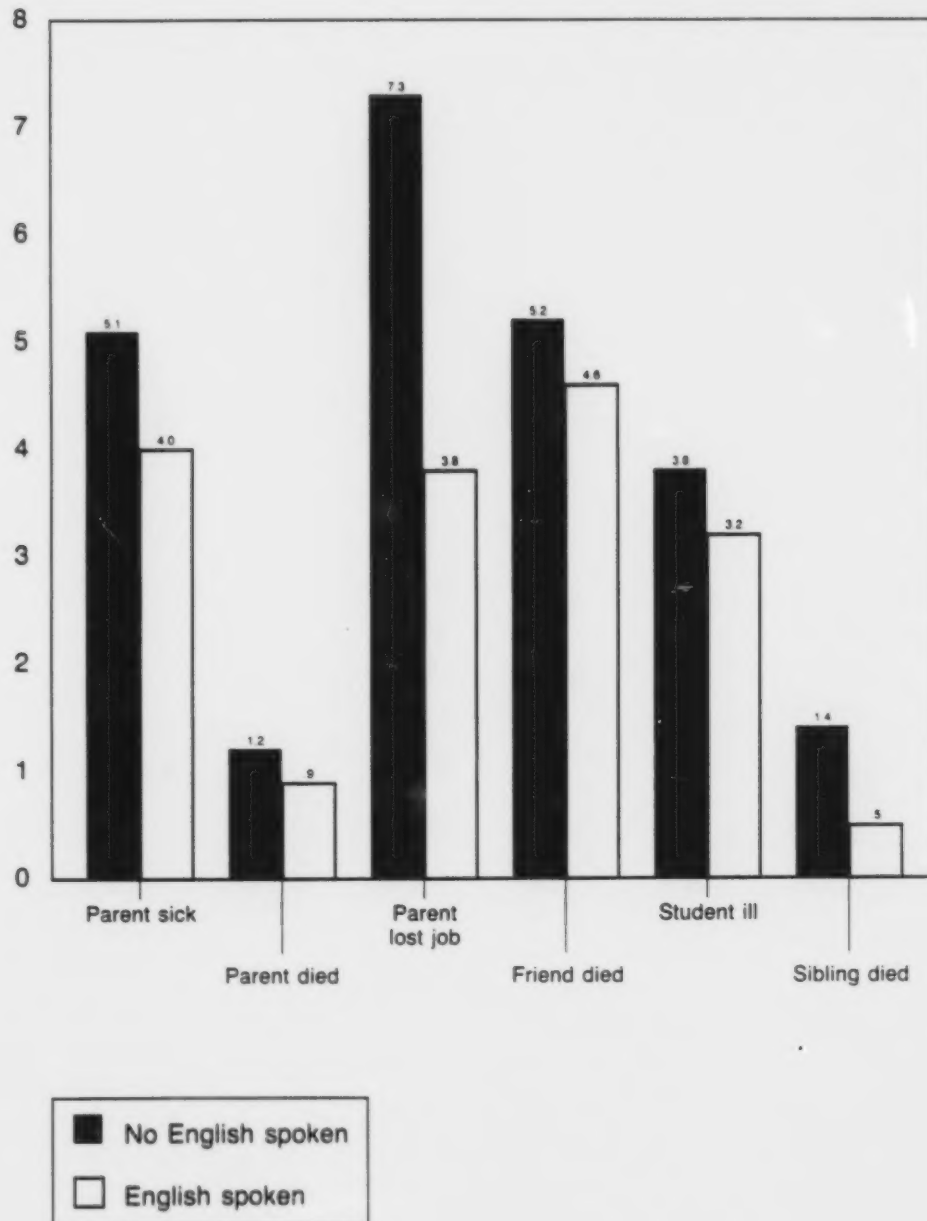


Chart 99

From broken home (N = 7,505) vs. real parents (N = 14,201)
Compared on family tragedy risk items (percent)

(Data from table 40)

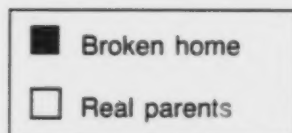
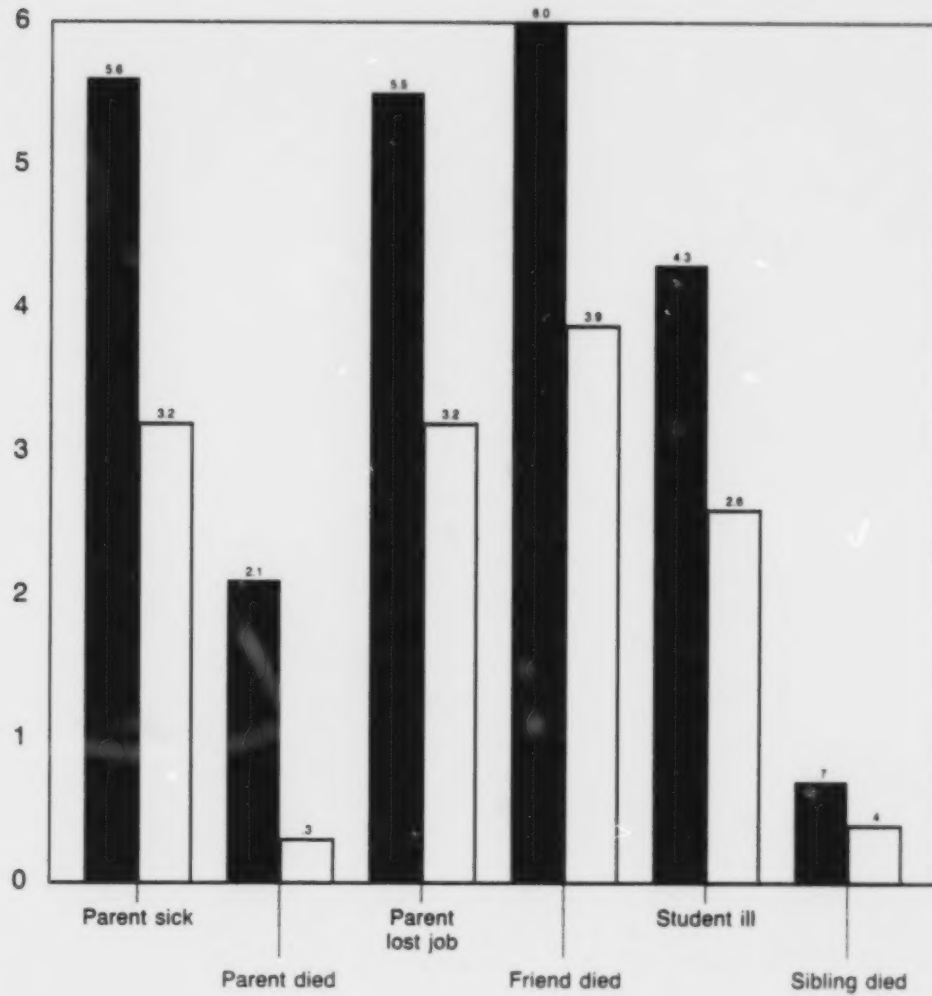


Chart 100

Moved frequently (N = 3,432) vs. did not move frequently (N = 18,274)
Compared on family tragedy risk items (percent)

(Data from table 41)

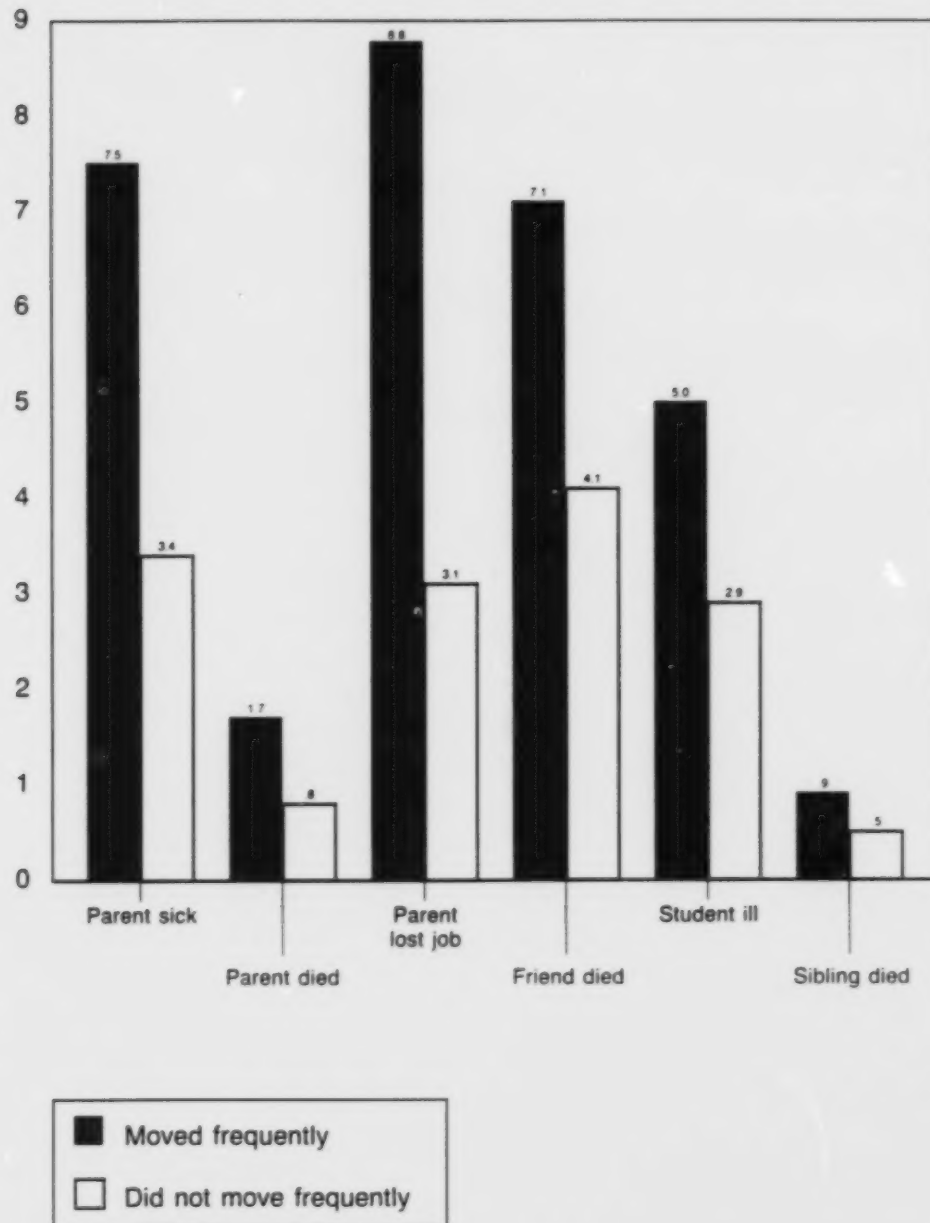


Chart 101

Changed schools frequently (N = 5,068) vs. did not change schools frequently (N = 16,638)
Compared on family tragedy risk items (percent)

(Data from table 42)

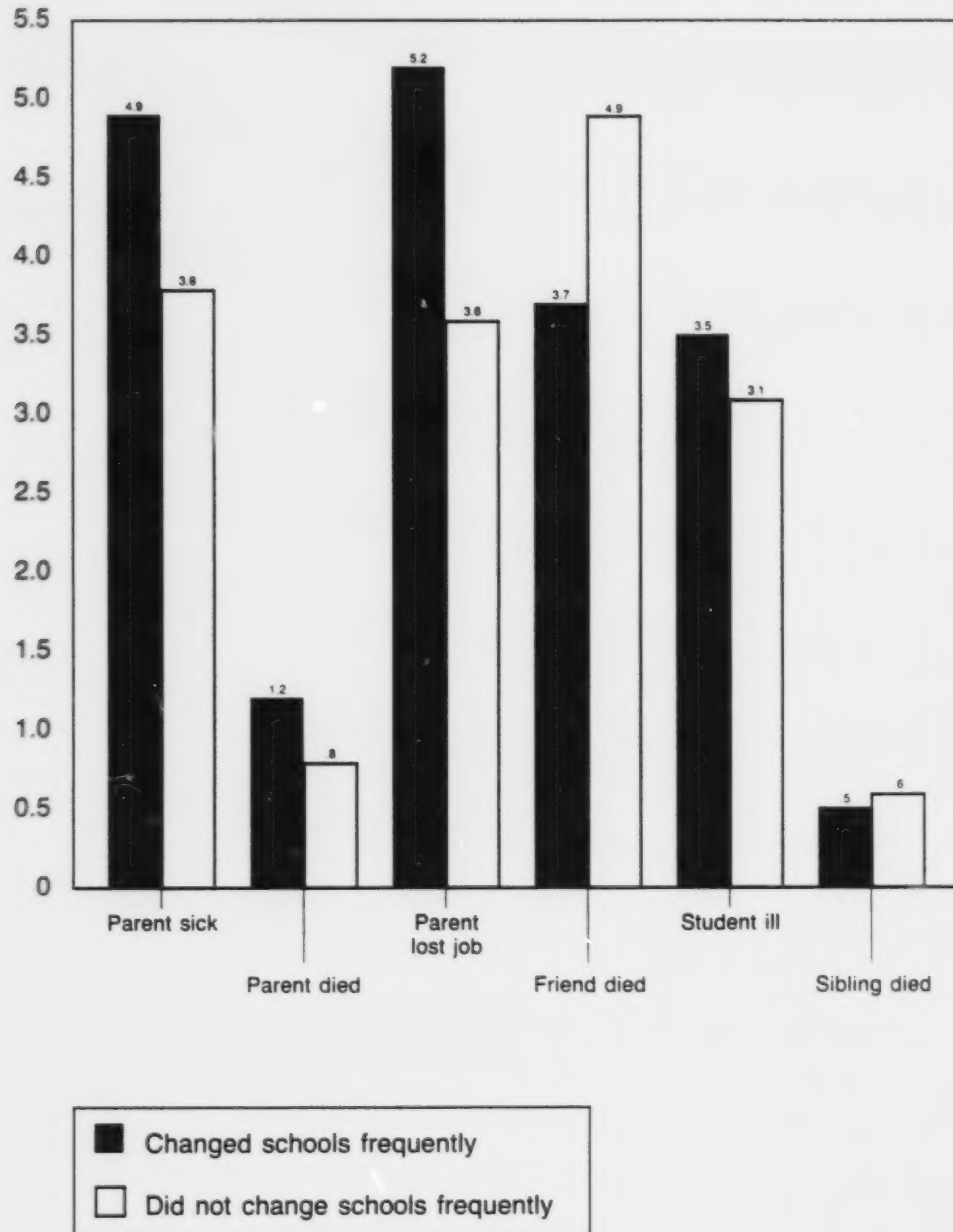


Chart 102

Parents divorced in last year (N = 1,484) vs. parents did not divorce in last year (N = 20,222)
Compared on family tragedy risk items (percent)

(Data from table 43)

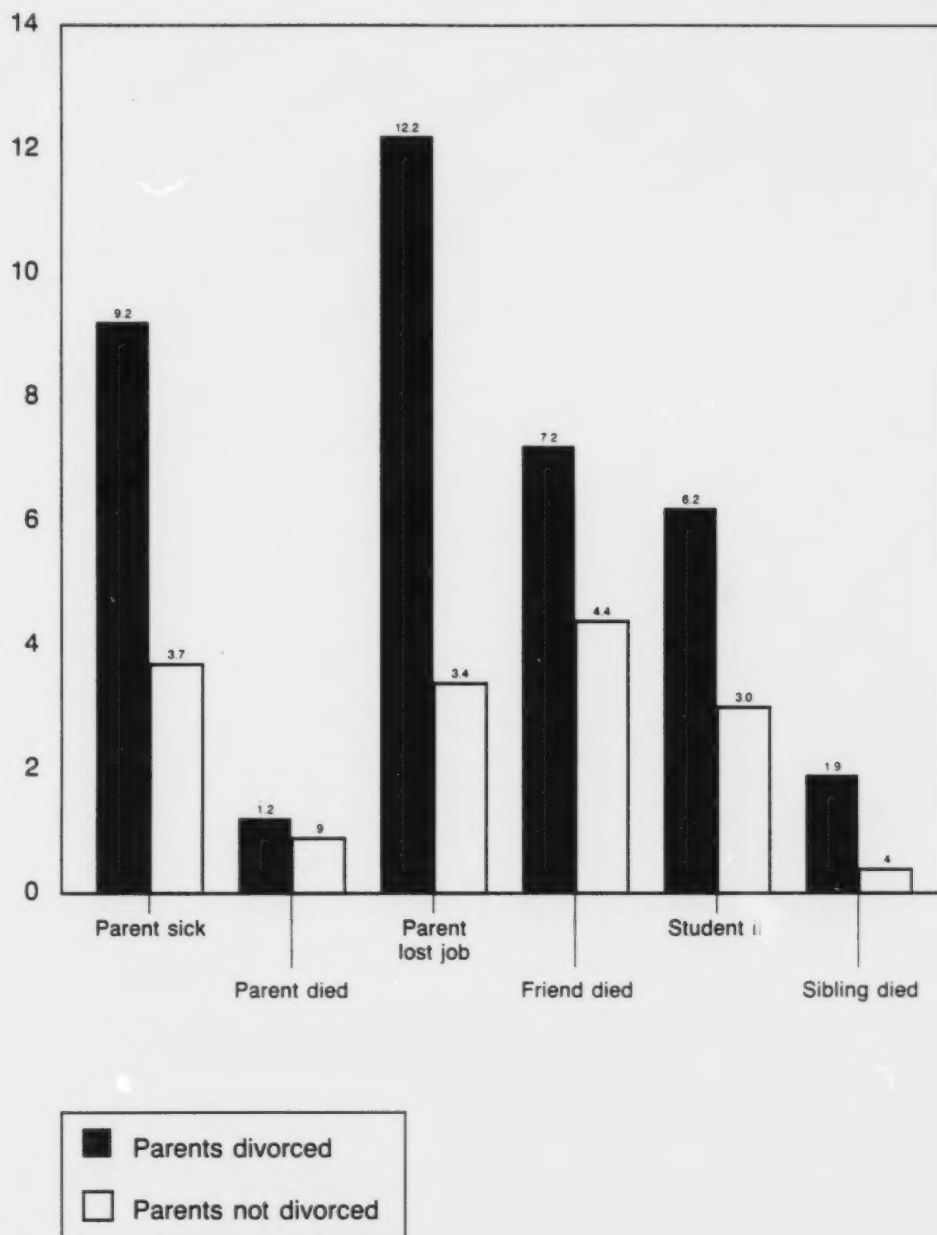


Chart 103

Suspended from school (N = 1,290) vs. nonsuspended (N = 20,416)
Compared on socioeconomic situation risk items (percent)

(Data from table 10)

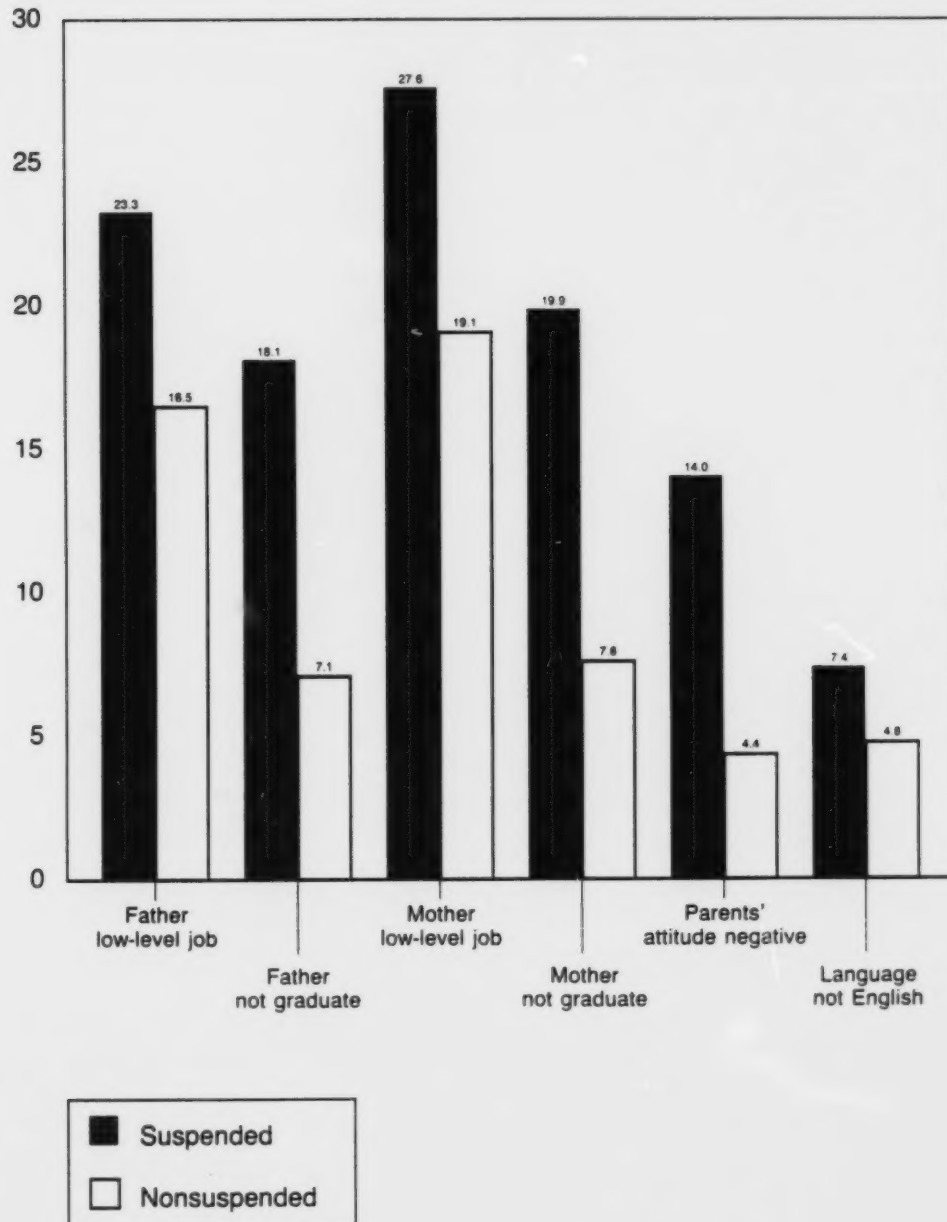


Chart 104

Attempted suicide (N = 176) vs. did not attempt suicide (N = 21,530)
Compared on socioeconomic situation risk items (percent)

(Data from table 11)

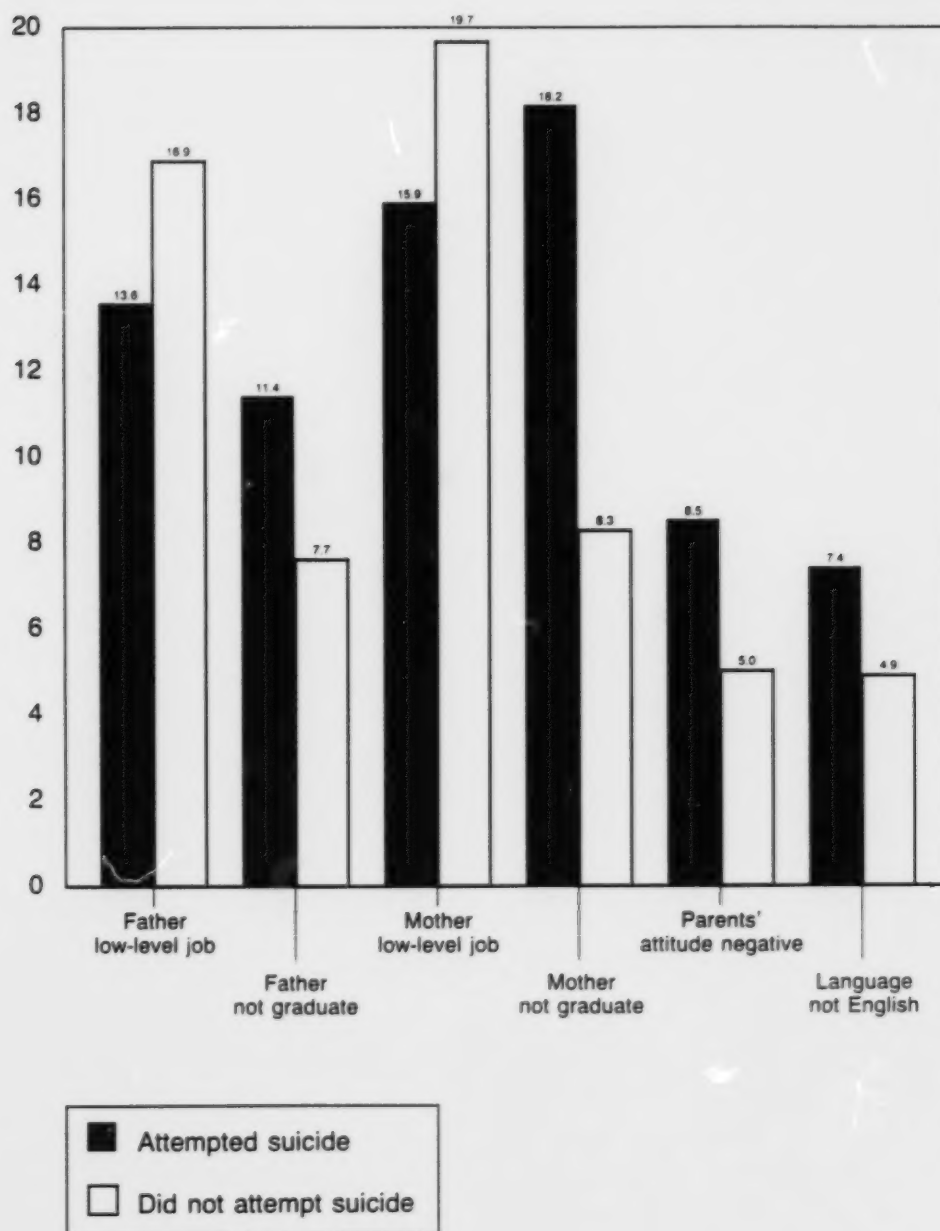


Chart 105

Involved in pregnancy (N = 124) vs. not involved in pregnancy (N = 21,582)
 Compared on socioeconomic situation risk items (percent)

(Data from table 12)

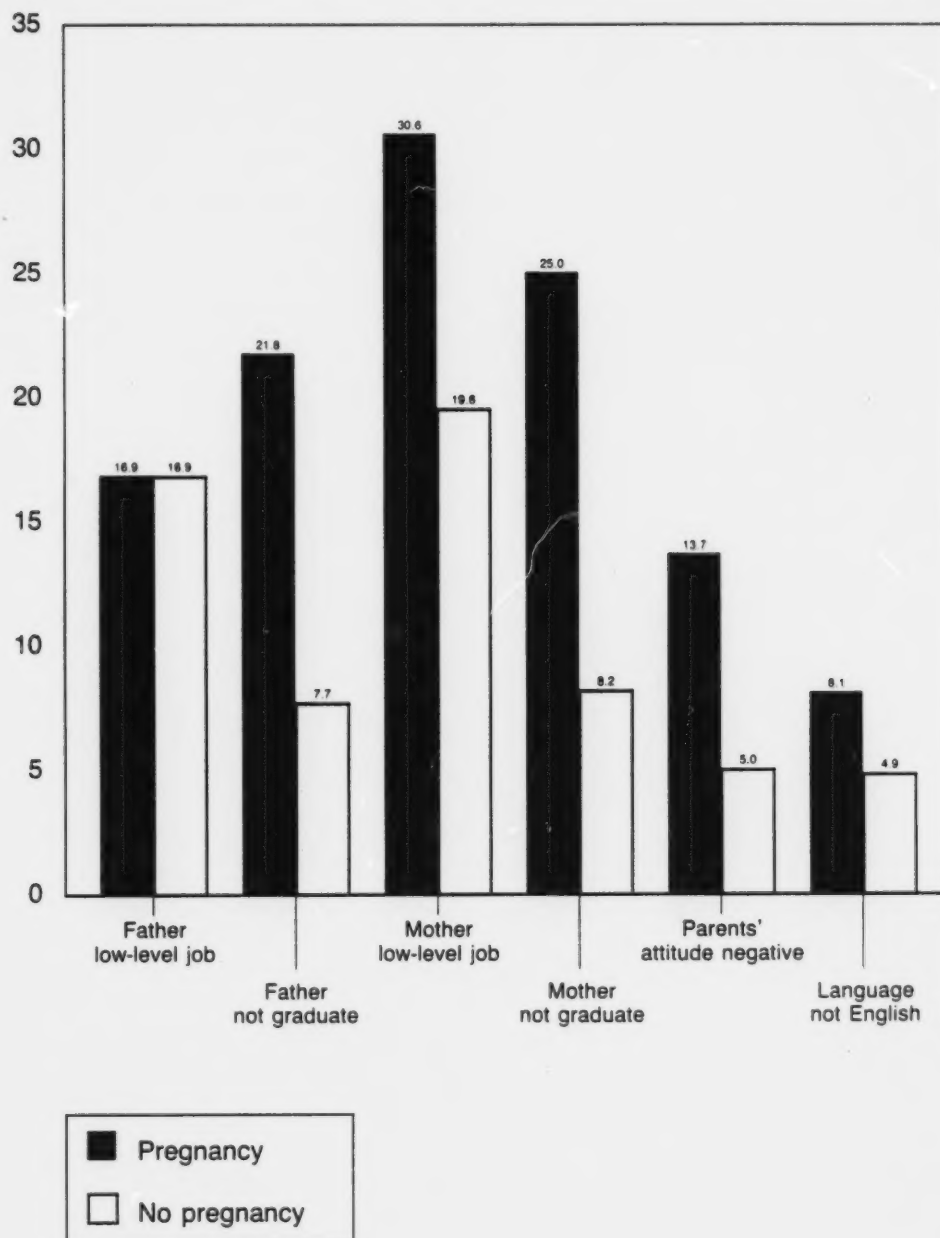


Chart 106

Student sold drugs (N = 122) vs. student did not sell drugs (N = 21,584)
Compared on socioeconomic situation risk items (percent)

(Data from table 13)

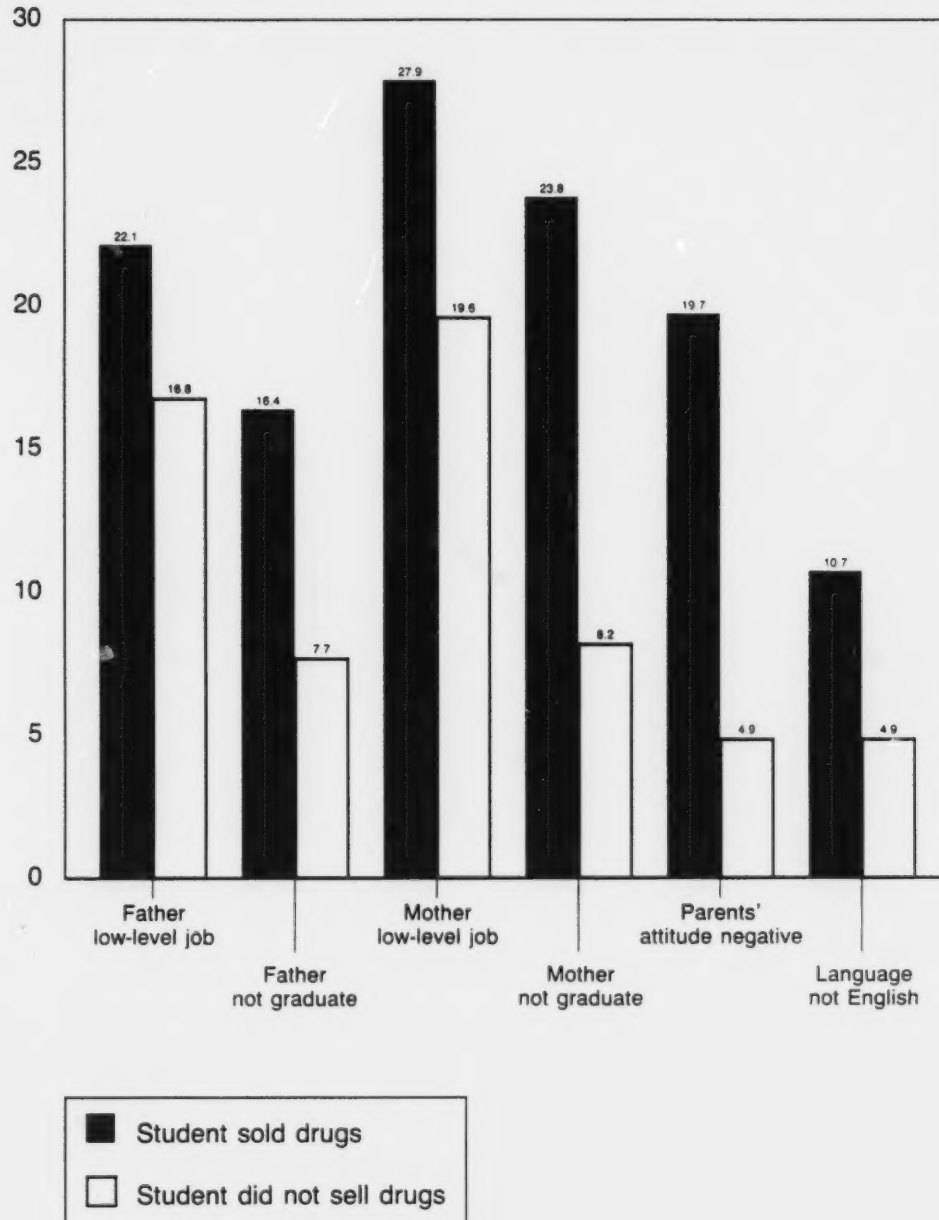


Chart 107

Student used drugs (N = 632) vs. student did not use drugs (N = 21,074)
 Compared on socioeconomic situation risk items (percent)

(Data from table 14)

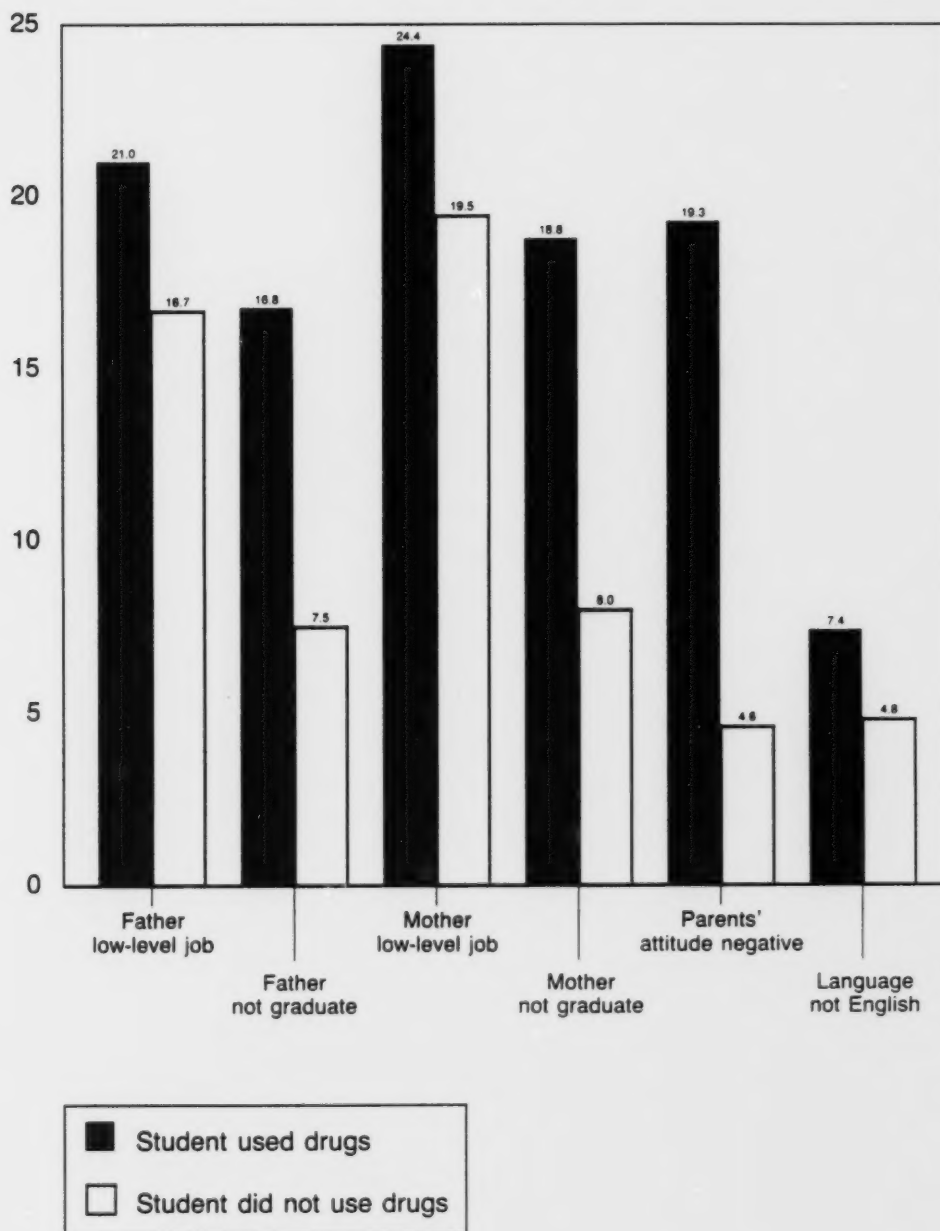


Chart 108

Family used drugs (N = 749) vs. family did not use (N = 20,957)
 Compared on socioeconomic situation risk items (percent)

(Data from table 15)

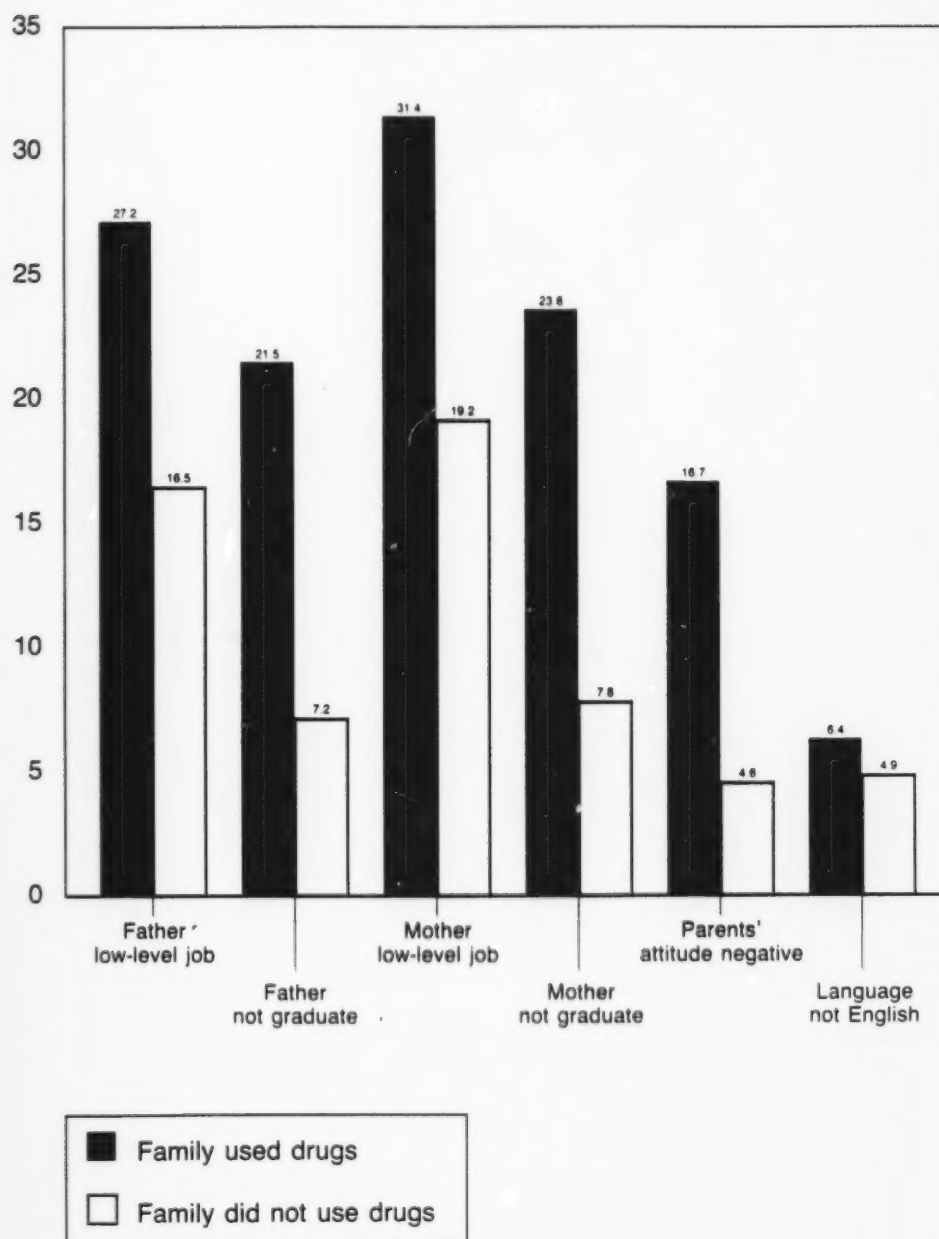


Chart 109

Student used alcohol (N = 1,002) vs. student did not use alcohol (N = 20,704)
 Compared on socioeconomic situation risk items (percent)

(Data from table i6)

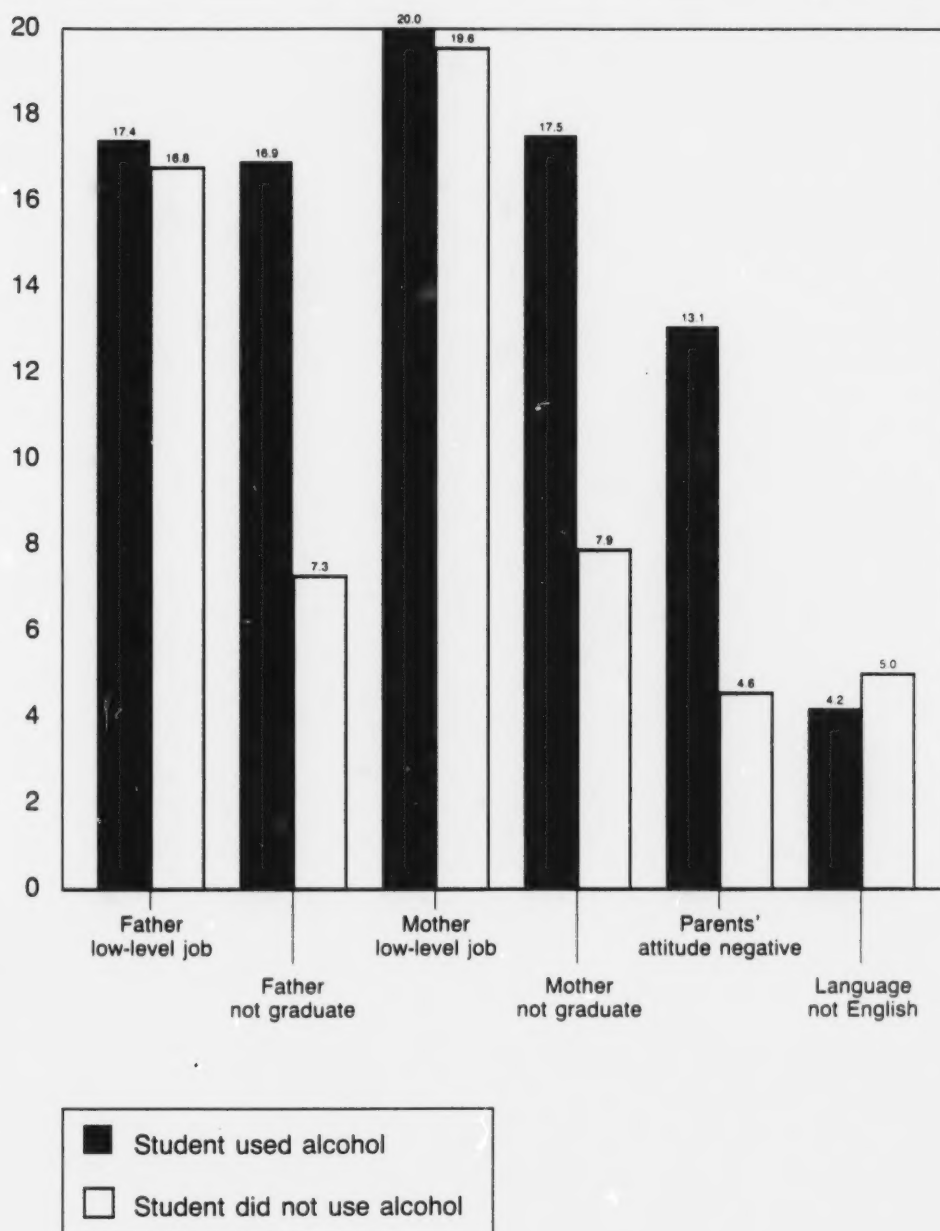


Chart 110

Parent alcoholic (N = 784) vs. parent not alcoholic (N = 20,922)
Compared on socioeconomic situation risk items (percent)

(Data from table 17)

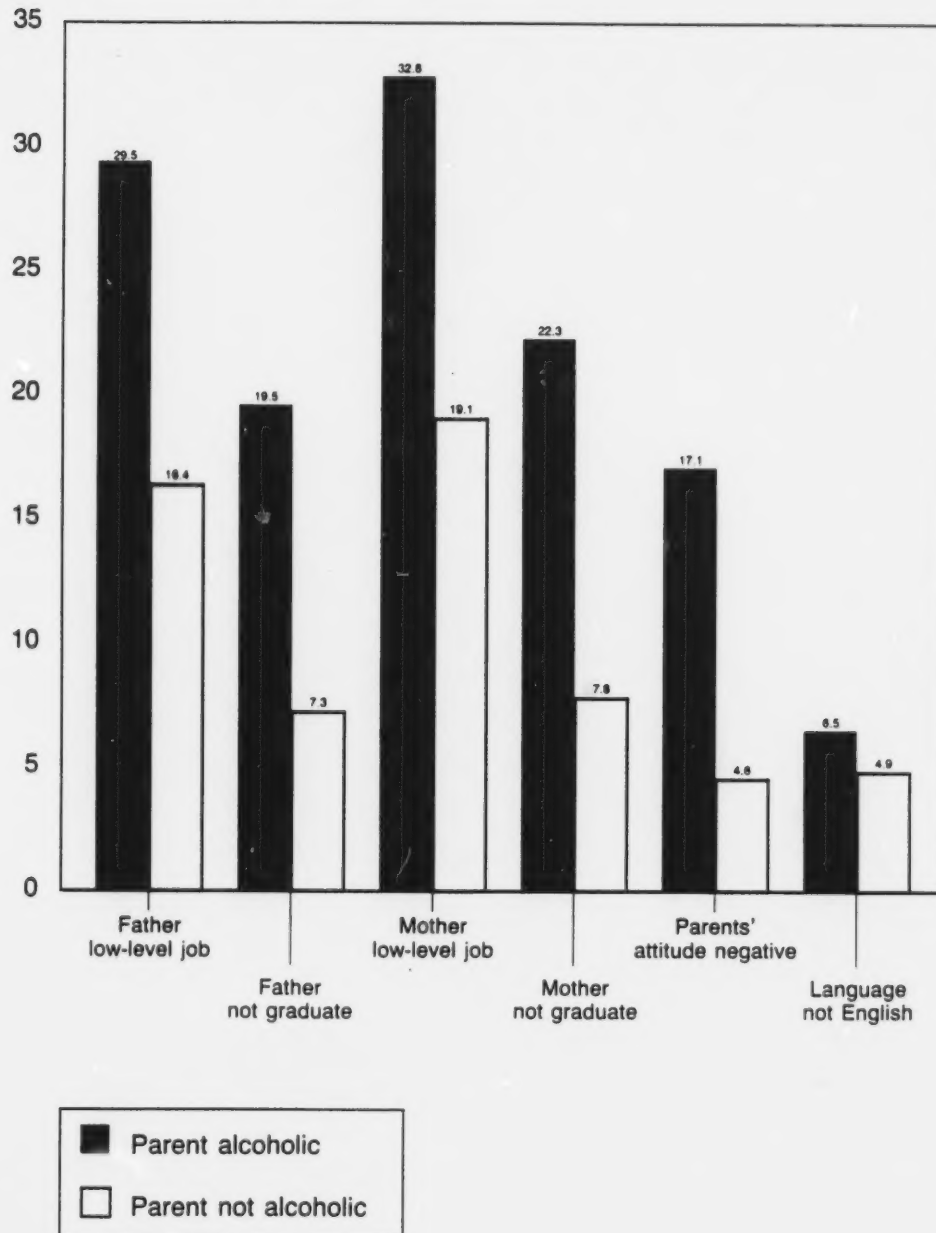


Chart 111

Student was arrested (N = 280) vs. student not arrested (N = 21,426)
Compared on socioeconomic situation risk items (percent)

(Data from table 18)

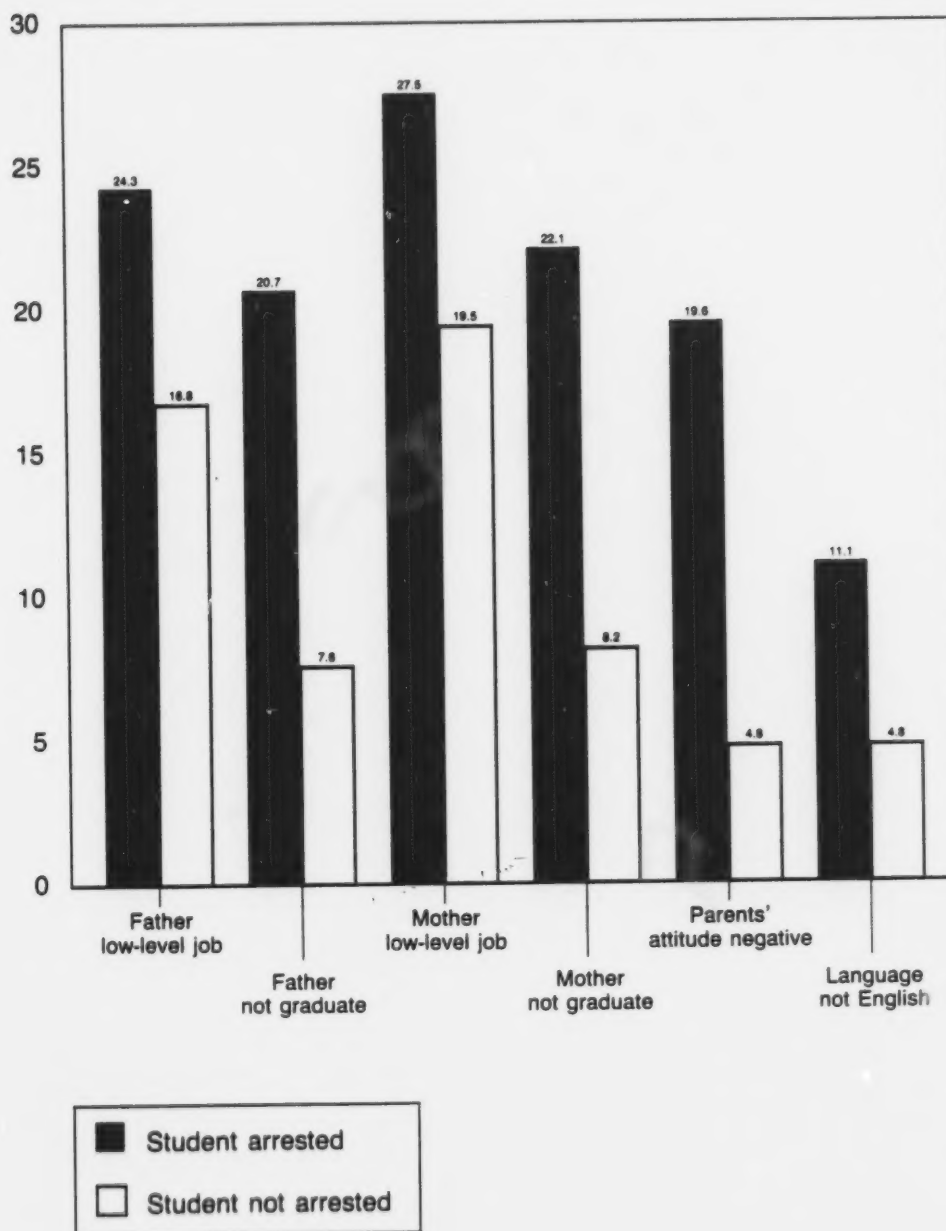


Chart 112

Student was abused (N = 406) vs. student was not abused (N = 21,300)
Compared on socioeconomic situation risk items (percent)

(Data from table 19)

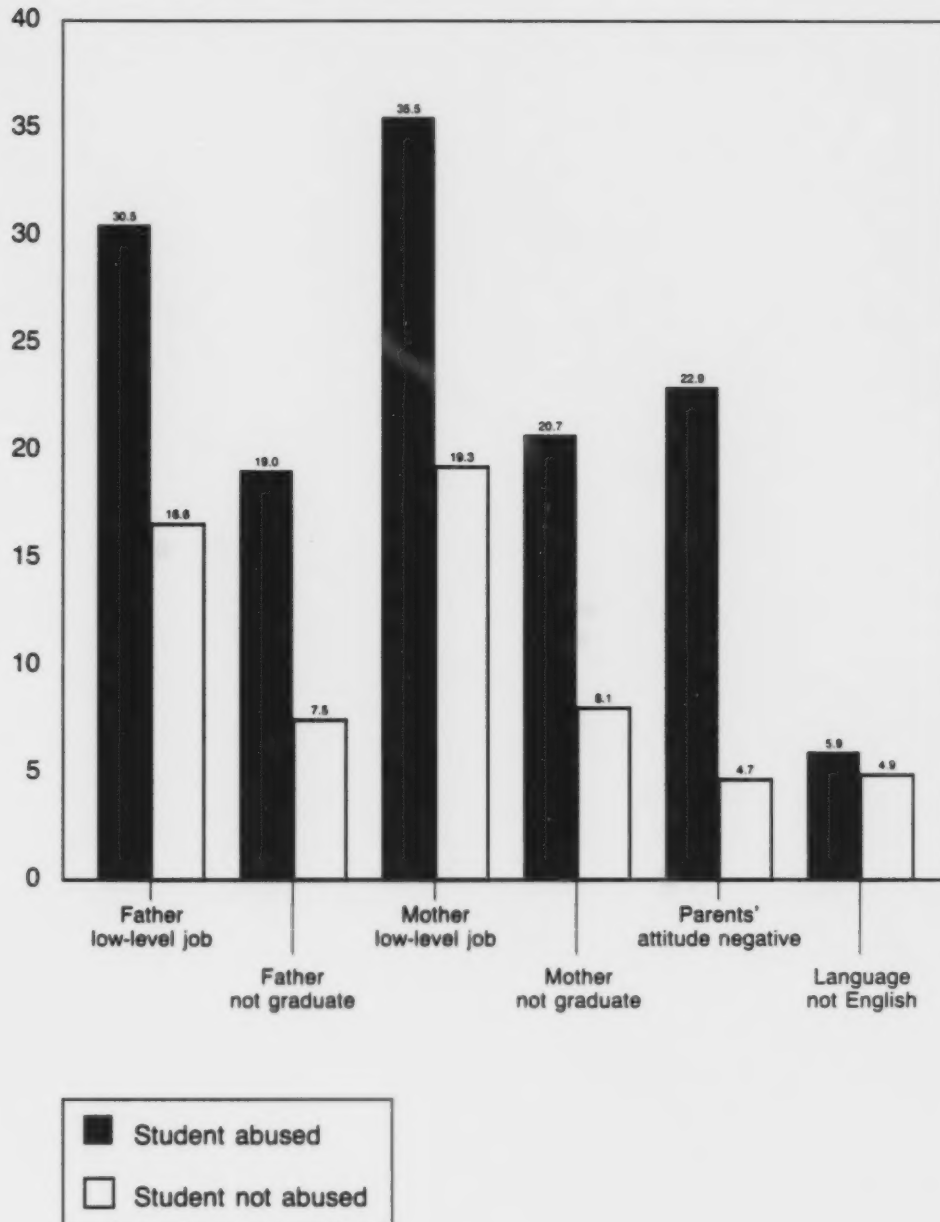


Chart 113

Low grades in school (N = 2,906) vs. grades not low (N = 18,800)
Compared on socioeconomic situation risk items (percent)

(Data from table 20)

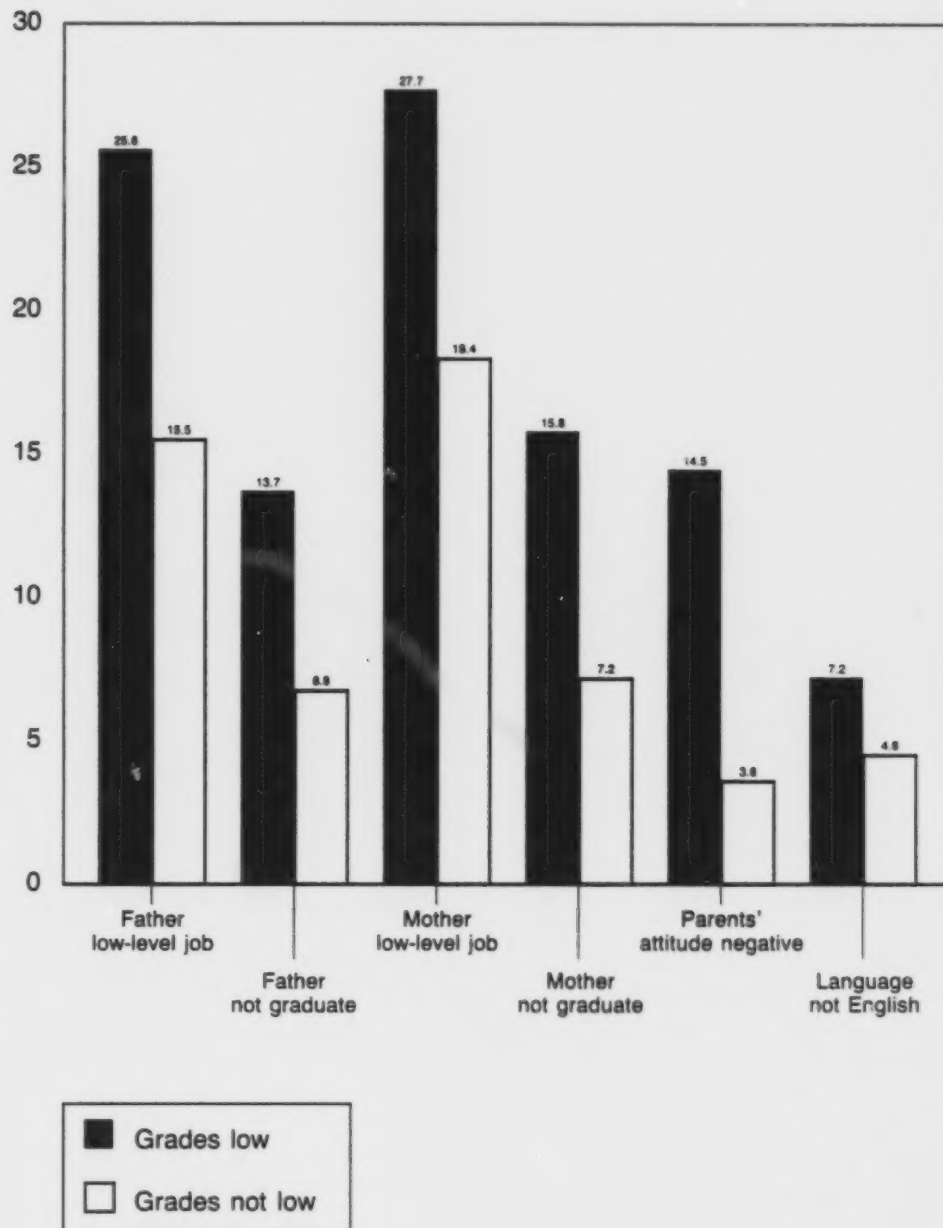


Chart 114

Student failed courses (N = 1,944) vs. student did not fail courses (N = 19,762)
 Compared on socioeconomic situation risk items (percent)

(Data from table 21)

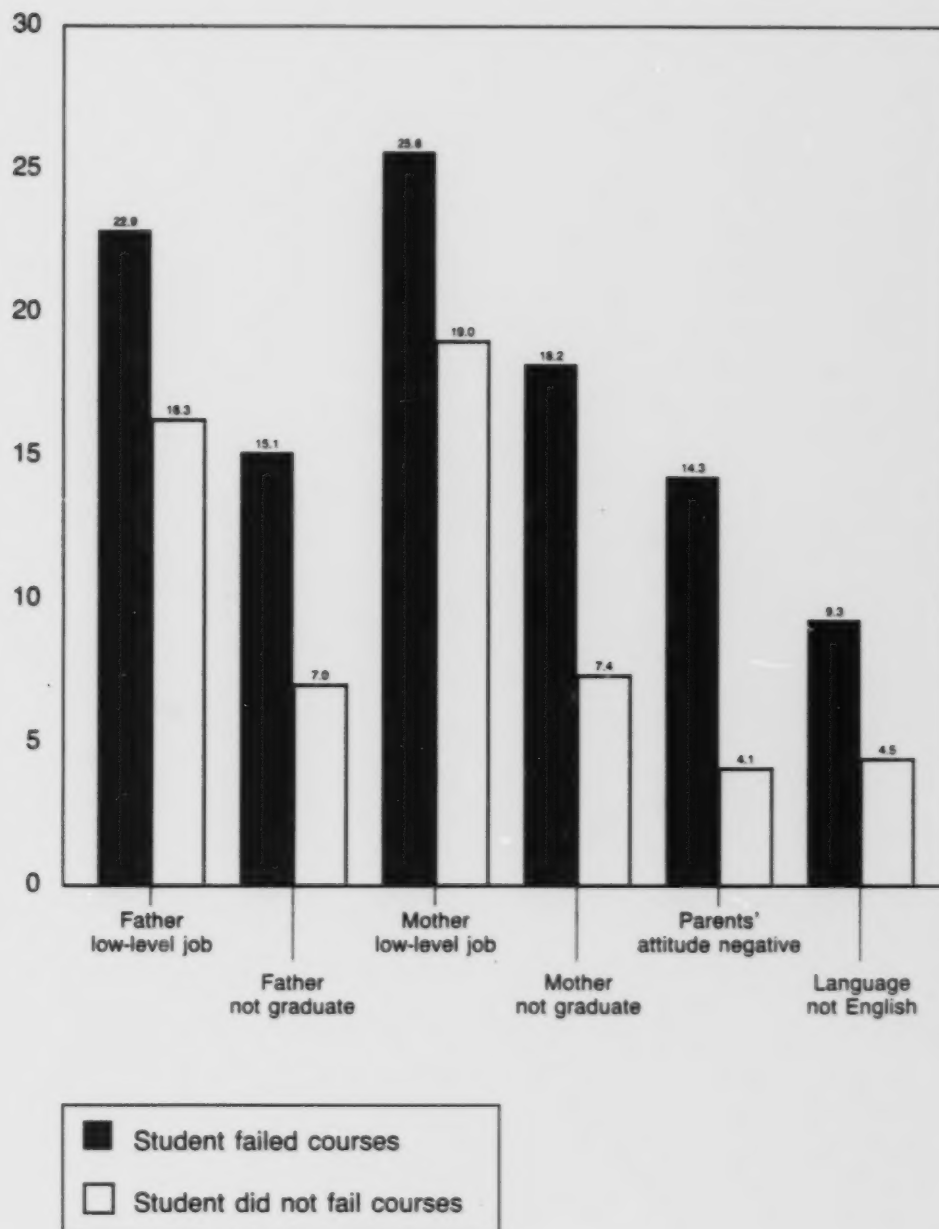


Chart 115

Student overage (N = 3,517) vs. student not overage (N = 18,189)
 Compared on socioeconomic situation risk items (percent)

(Data from table 22)

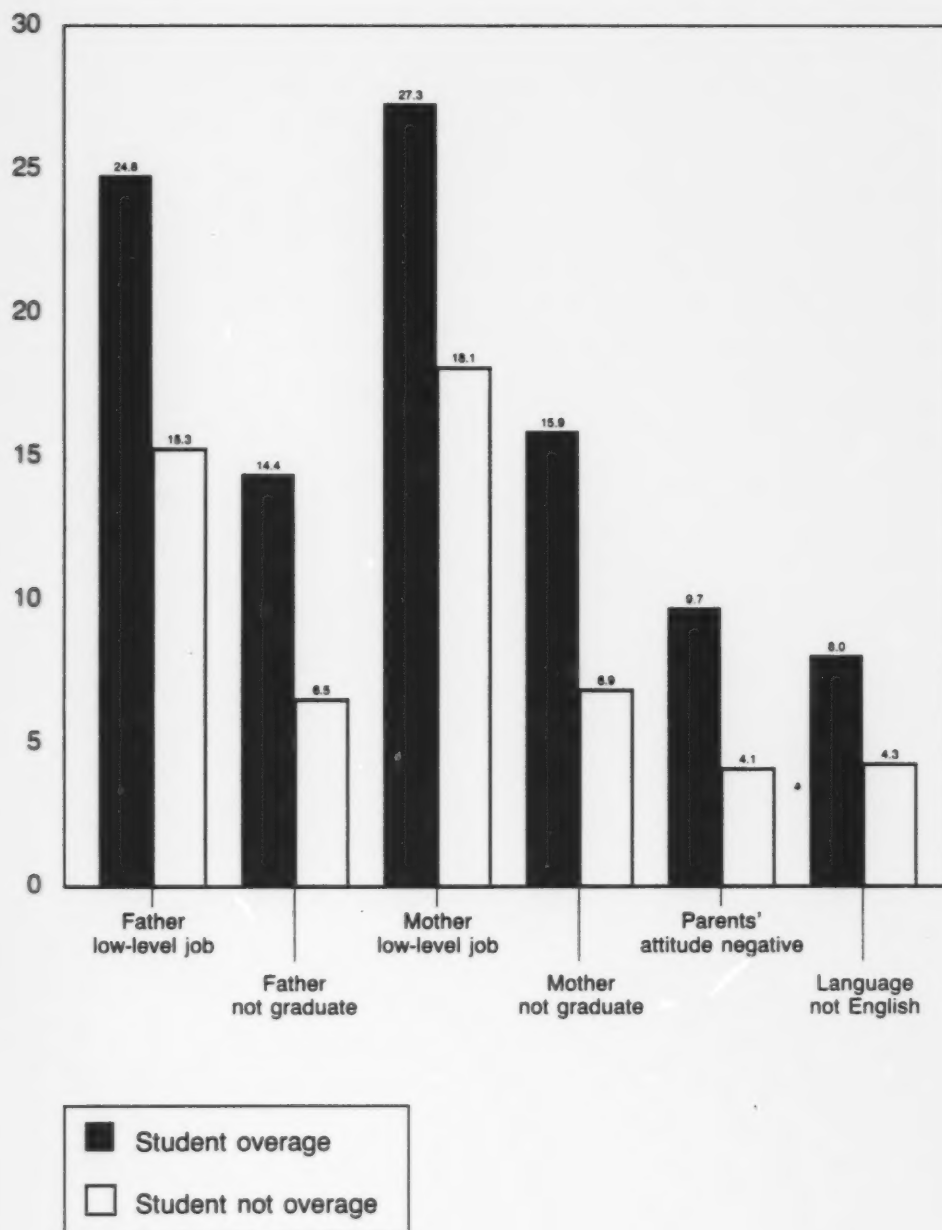


Chart 116

Student retained (N = 3,100) vs. student not retained (N = 18,606)
Compared on socioeconomic situation risk items (percent)

(Data from table 23)

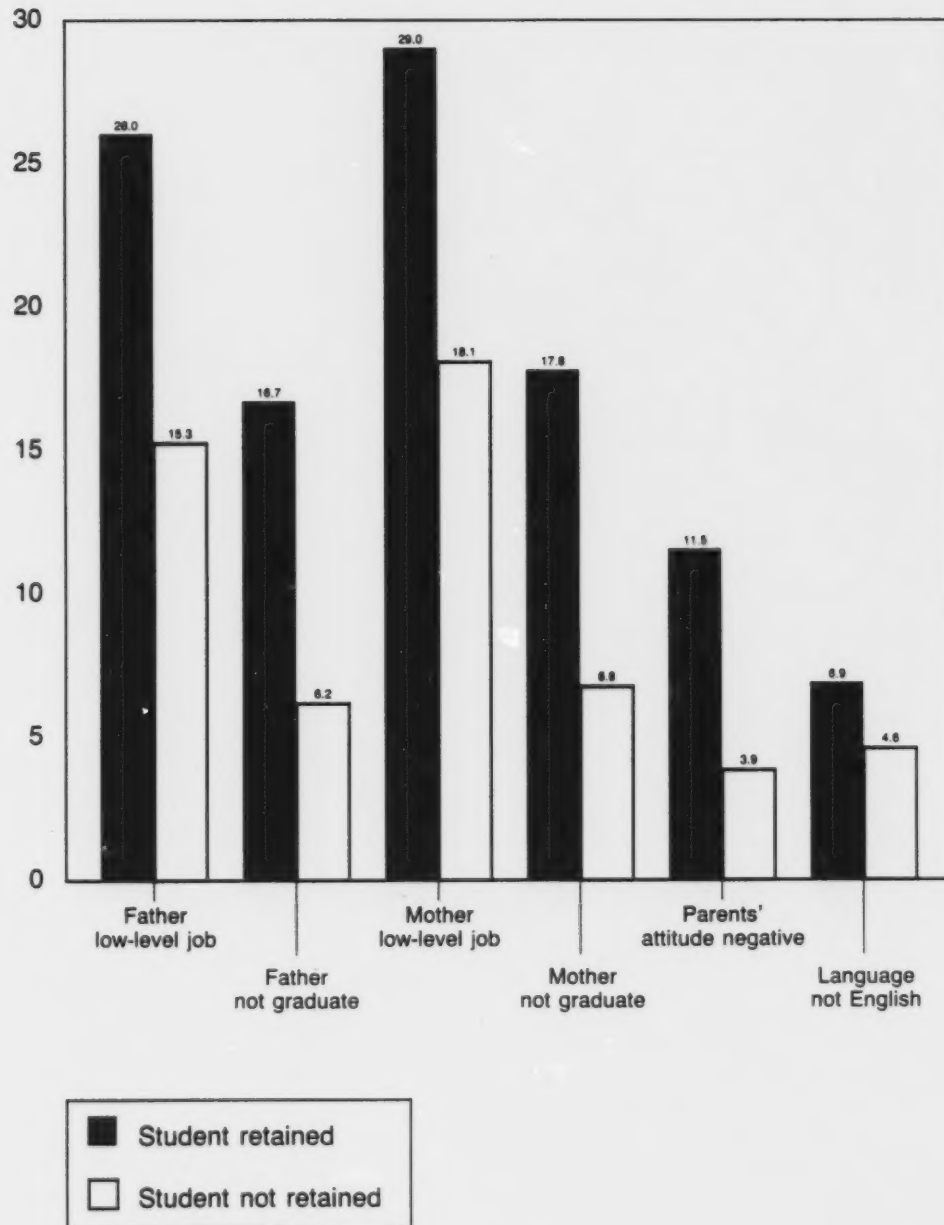


Chart 117

Excessive absences (N = 1,497) vs. no excessive absences (N = 20,209)
Compared on socioeconomic situation risk items (percent)

(Data from table 24)

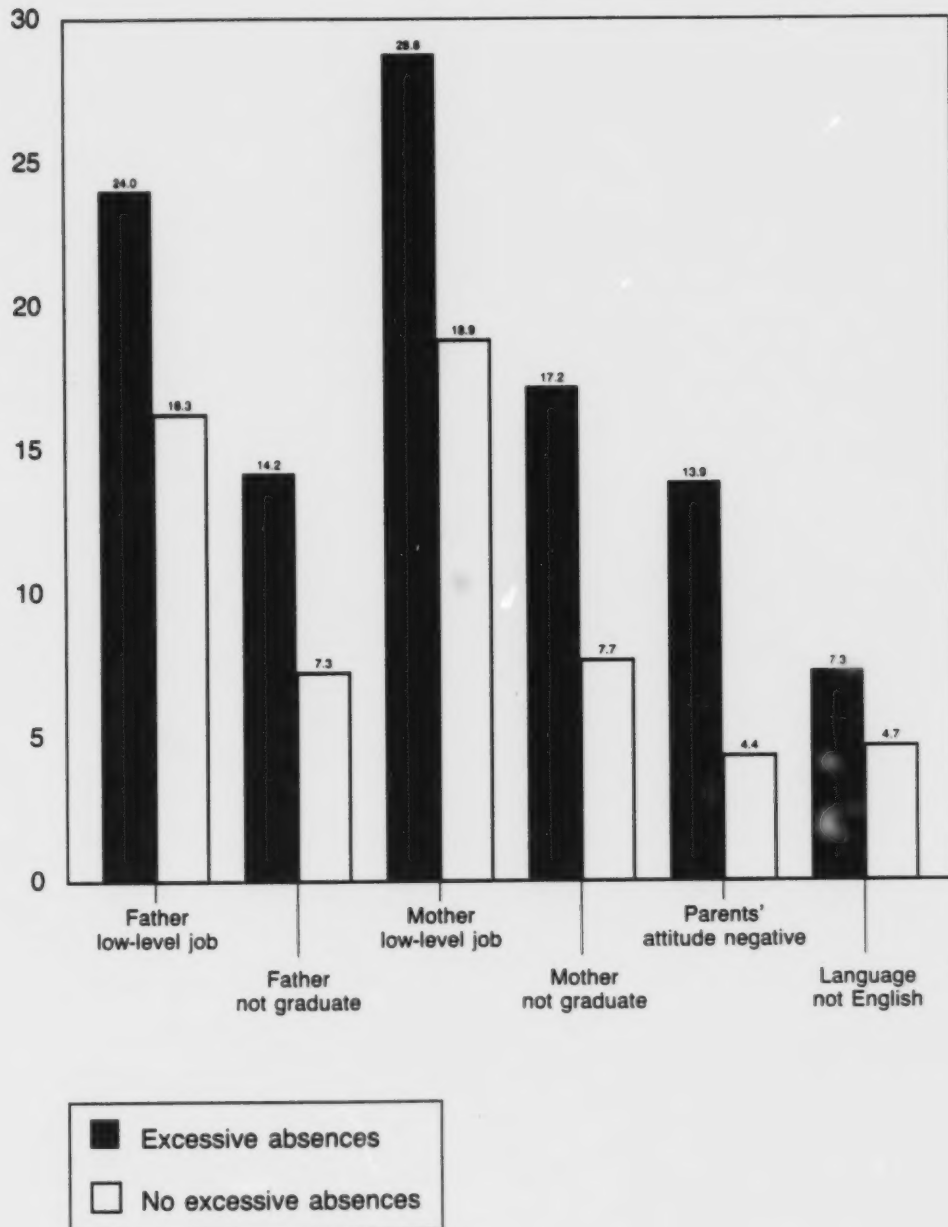


Chart 118

Low self-esteem (N = 2,686) vs. not low self-esteem (N = 19,020)
Compared on socioeconomic situation risk items (percent)

(Data from table 25)

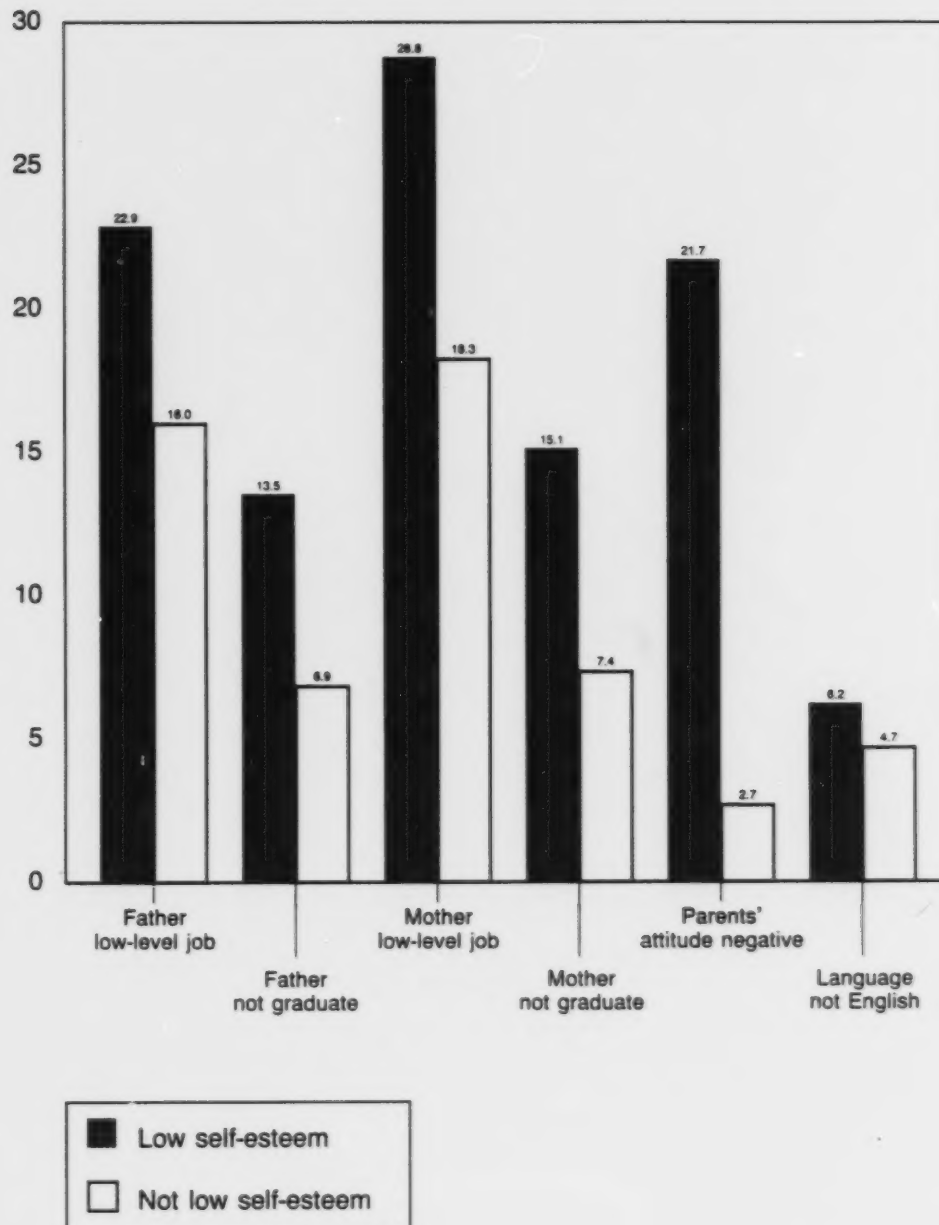


Chart 119

Referred to special education (N = 2,128) vs. not referred to special education (N = 19,578)
Compared on socioeconomic situation risk items (percent)

(Data from table 26)

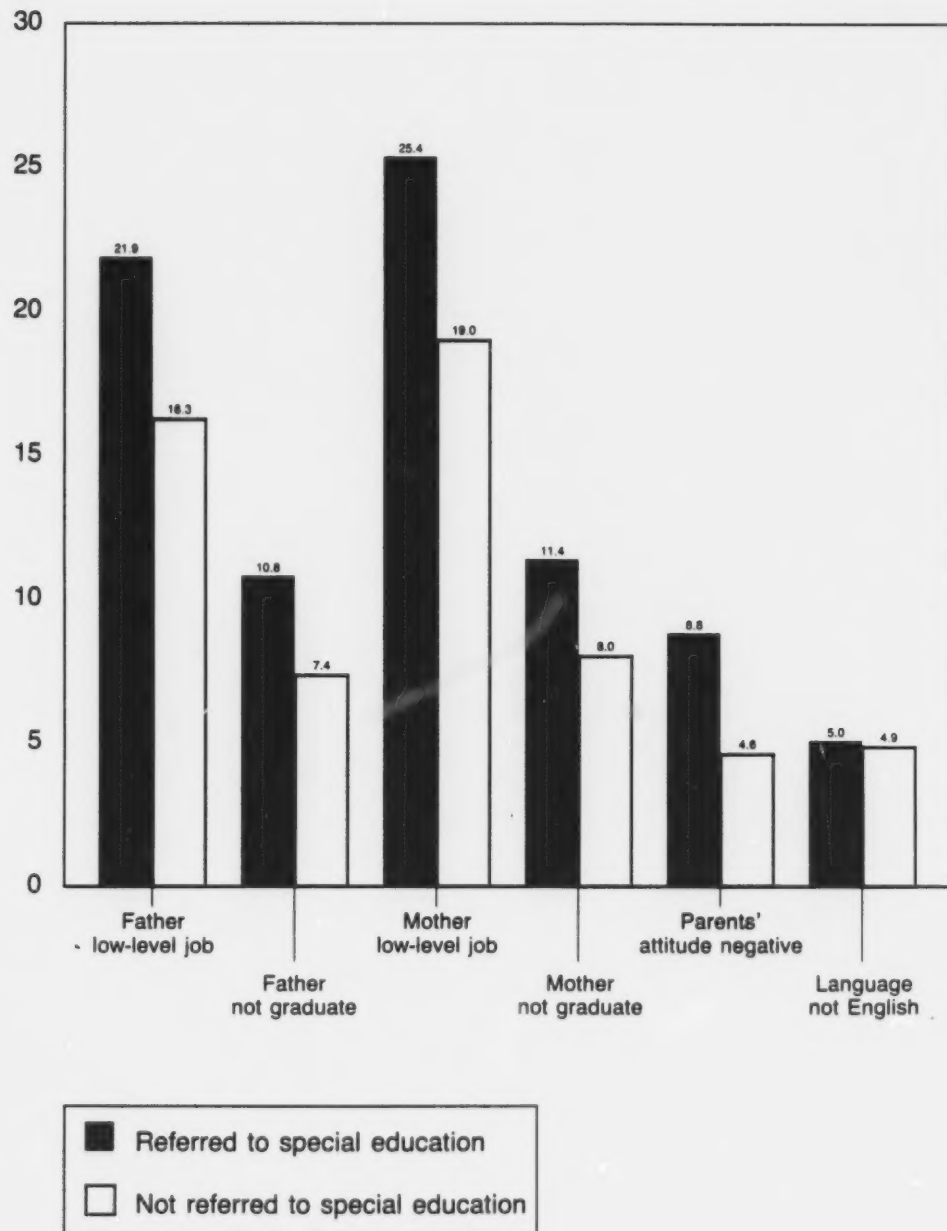


Chart 120

Low reading scores (N = 2,037) vs. not low reading scores (N = 19,669)
Compared on socioeconomic situation risk items (percent)

(Data from table 27)

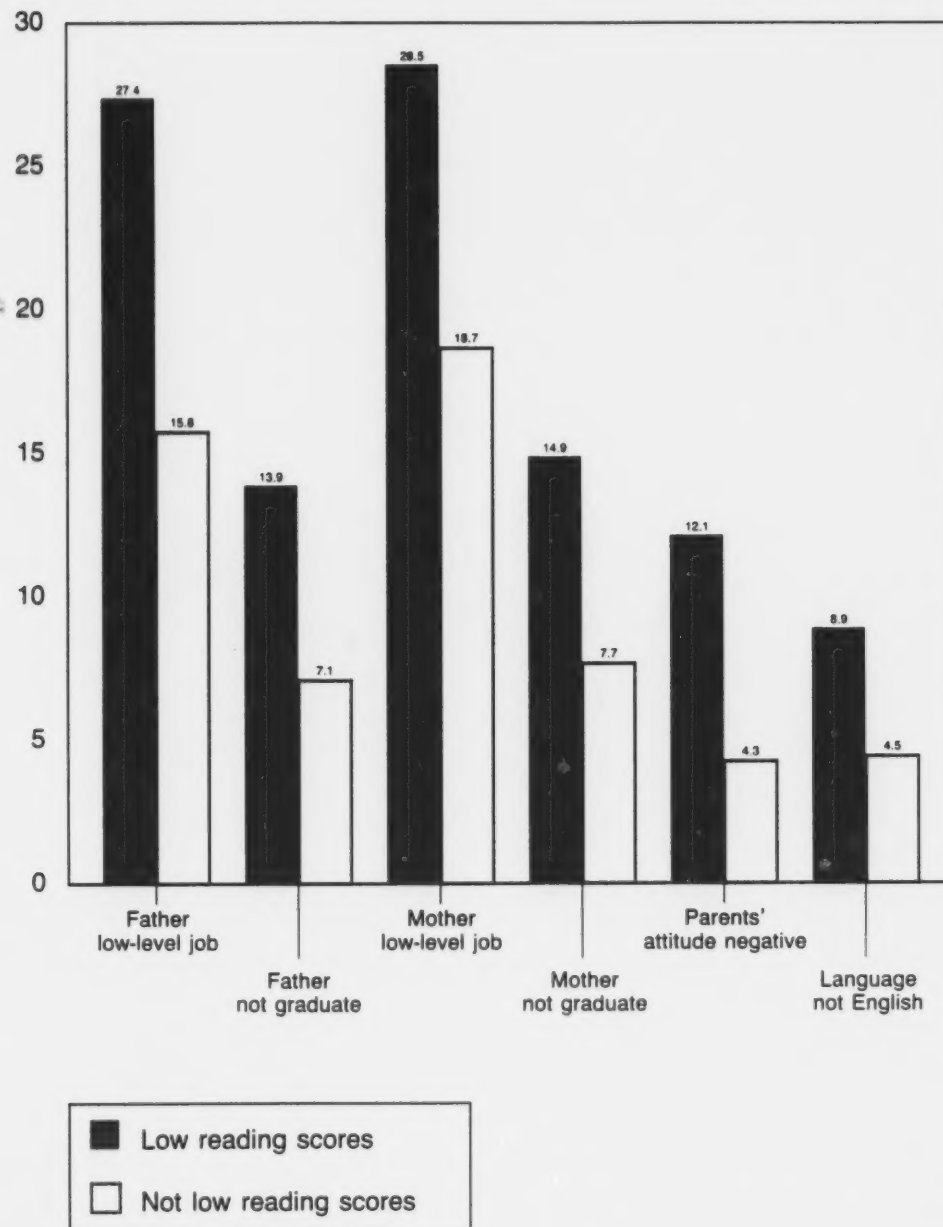


Chart 121

Parent sick in last year (N = 878) vs. parent not sick in last year (N = 20,828)
Compared on socioeconomic situation risk items (percent)

(Data from table 28)

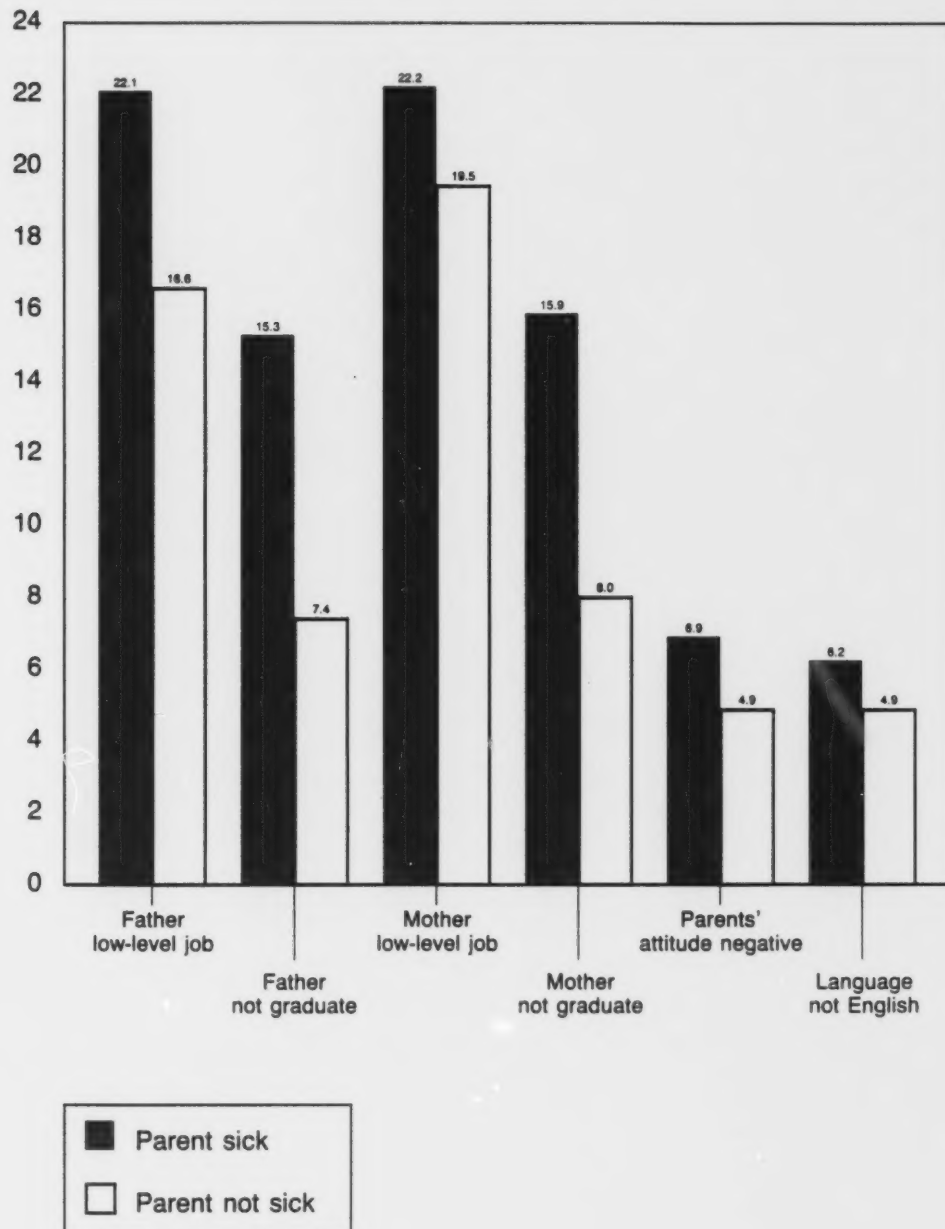


Chart 122

Parent died last year (N = 198) vs. parent did not die last year (N = 21,508)
Compared on socioeconomic situation risk items (percent)

(Data from table 29)

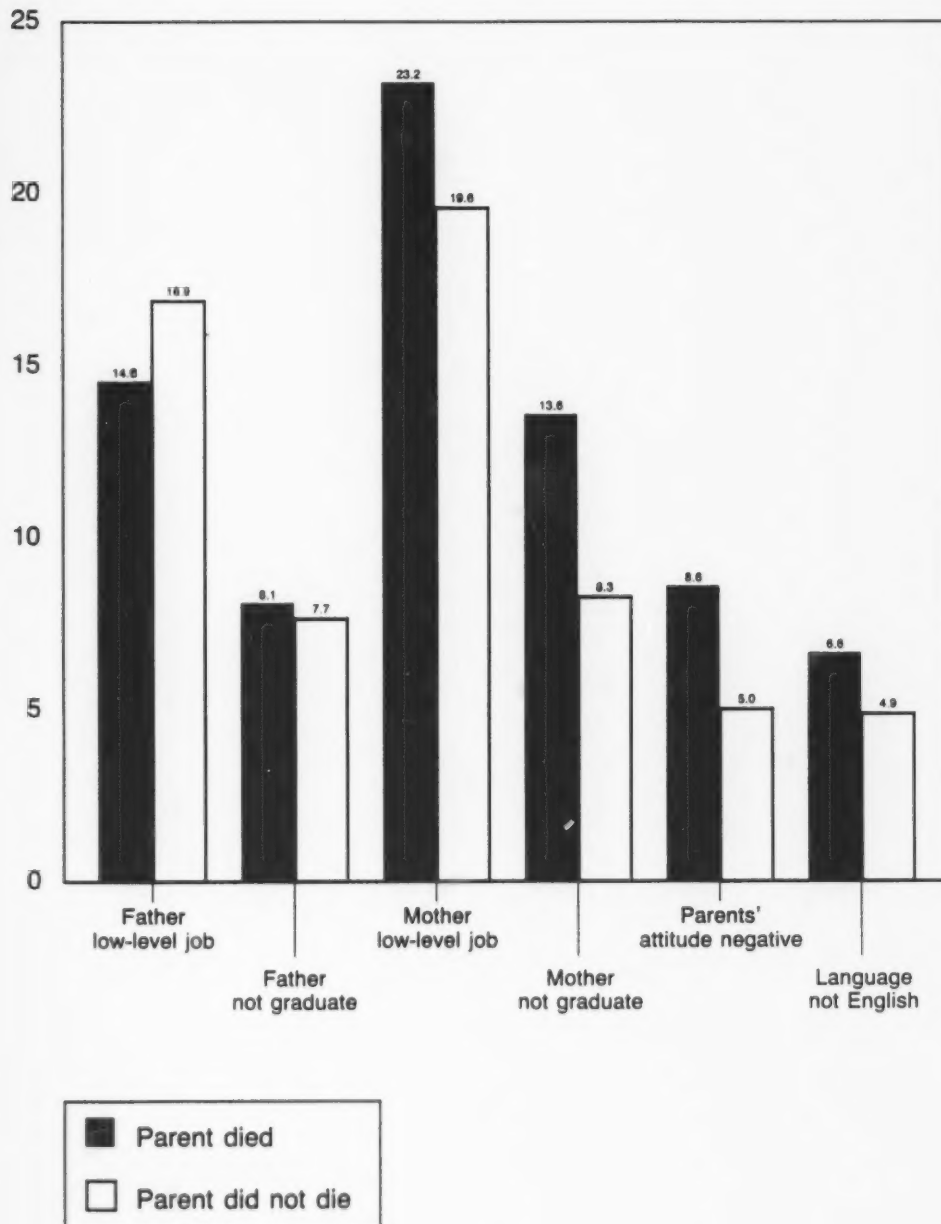


Chart 123

Parent lost job last year (N = 869) vs. parent did not lose job (N = 20,837)
Compared on socioeconomic situation risk items (percent)

(Data from table 30)

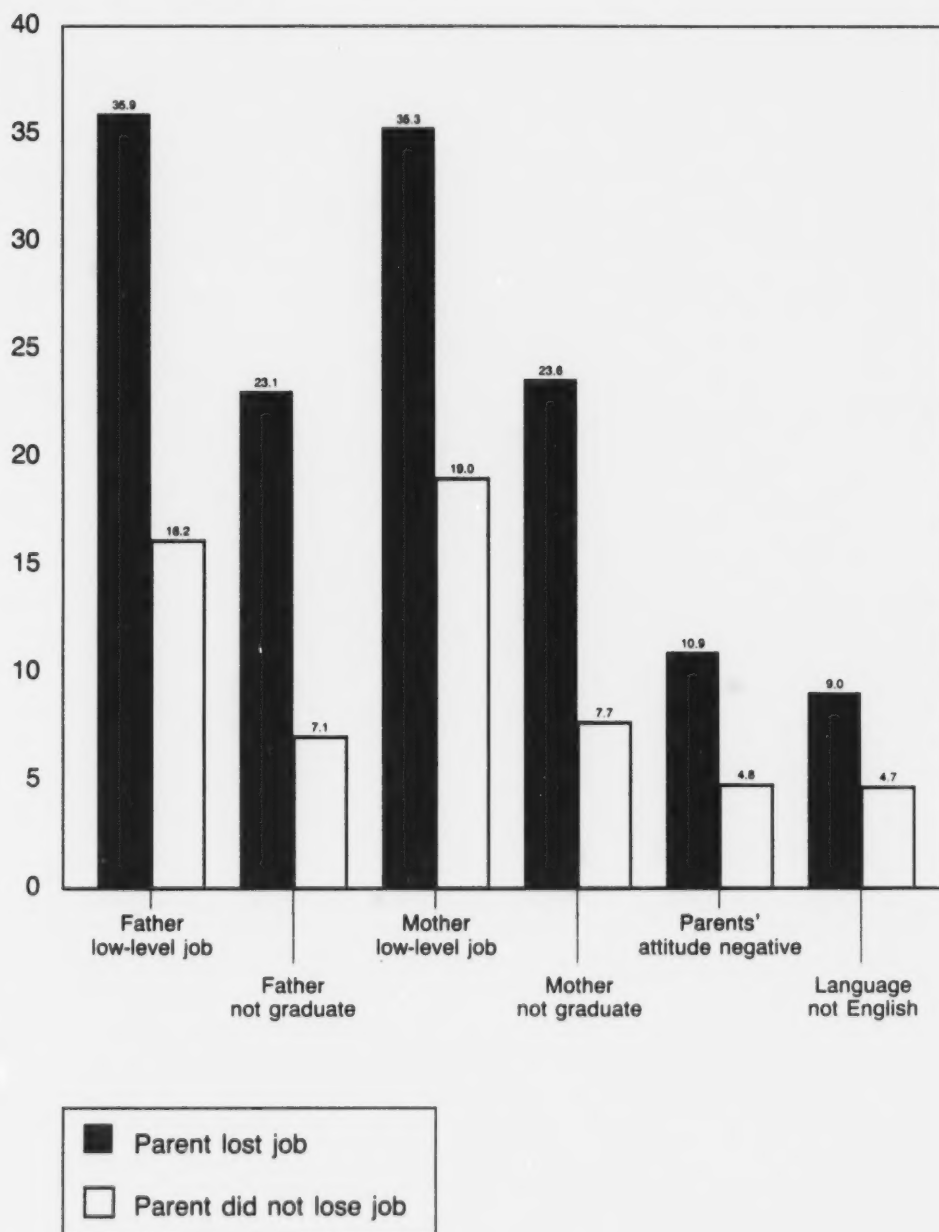


Chart 124

Friend died last year (N = 998) vs. friend did not die last year (N = 20,708)
Compared on socioeconomic situation risk items (percent)

(Data from table 31)

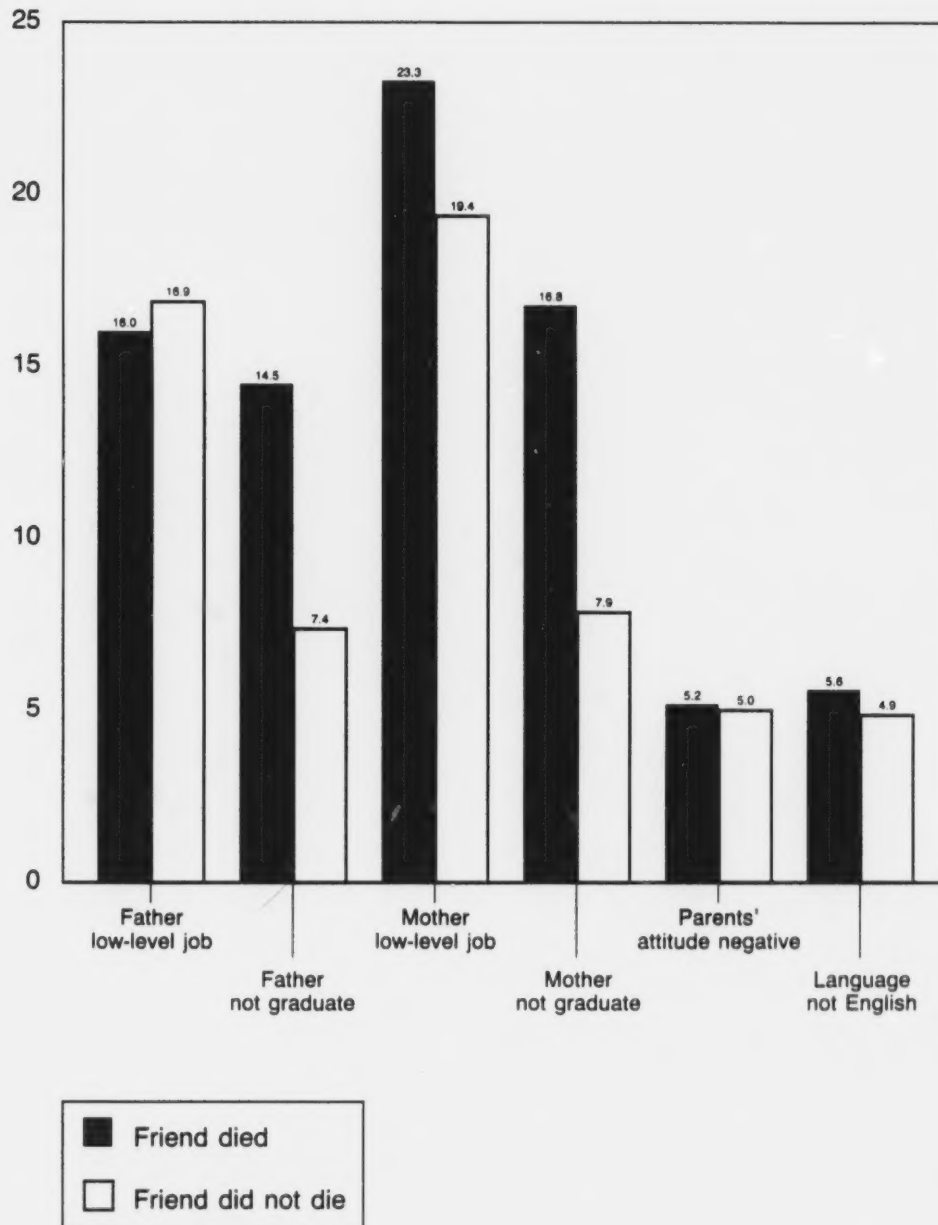


Chart 125

Student seriously ill in last year (N = 697) vs. student not ill (N = 21,009)
Compared on socioeconomic situation risk items (percent)

(Data from table 32)

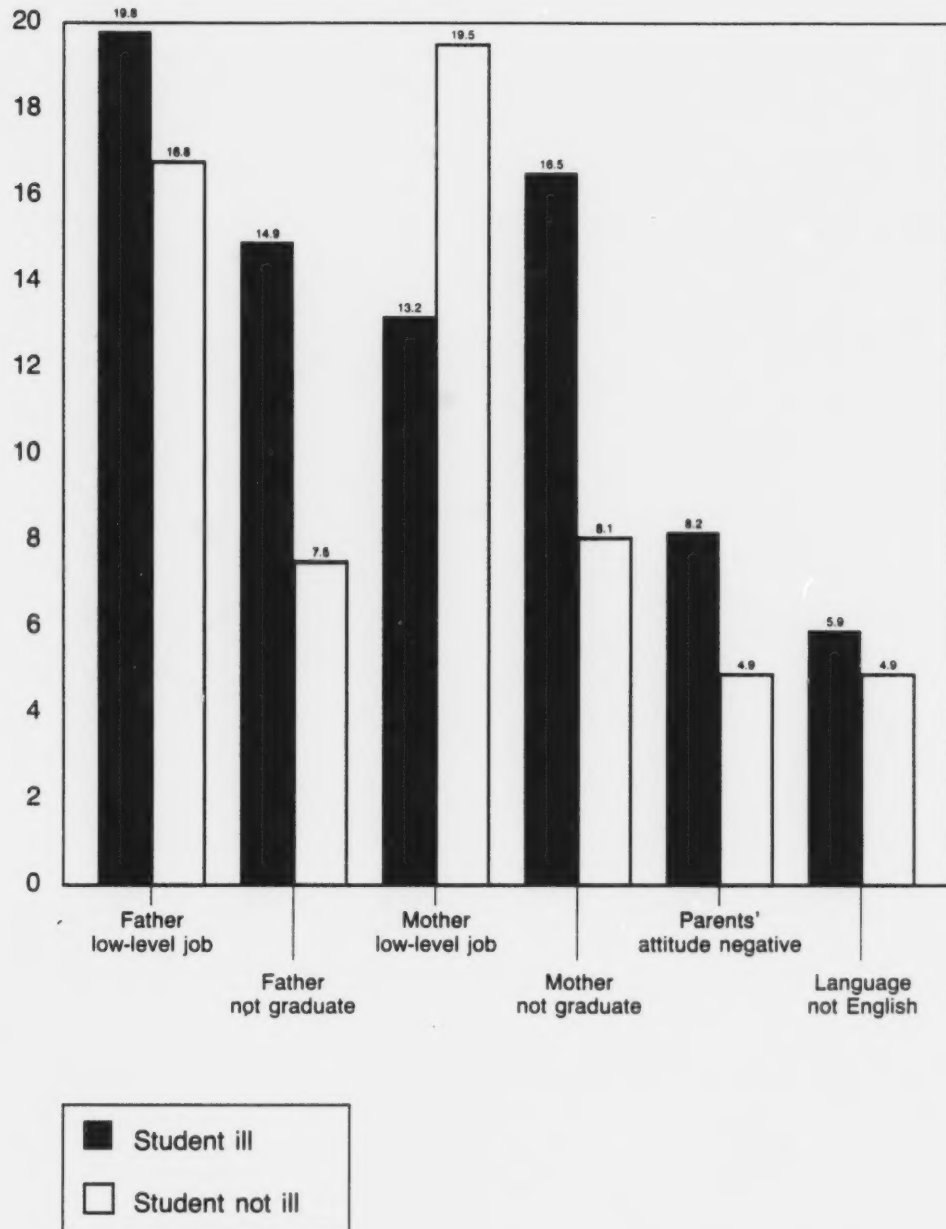


Chart 126

Sibling died in last year (N = 118) vs. sibling did not die (N = 21,588)
Compared on socioeconomic situation risk items (percent)

(Data from table 33)

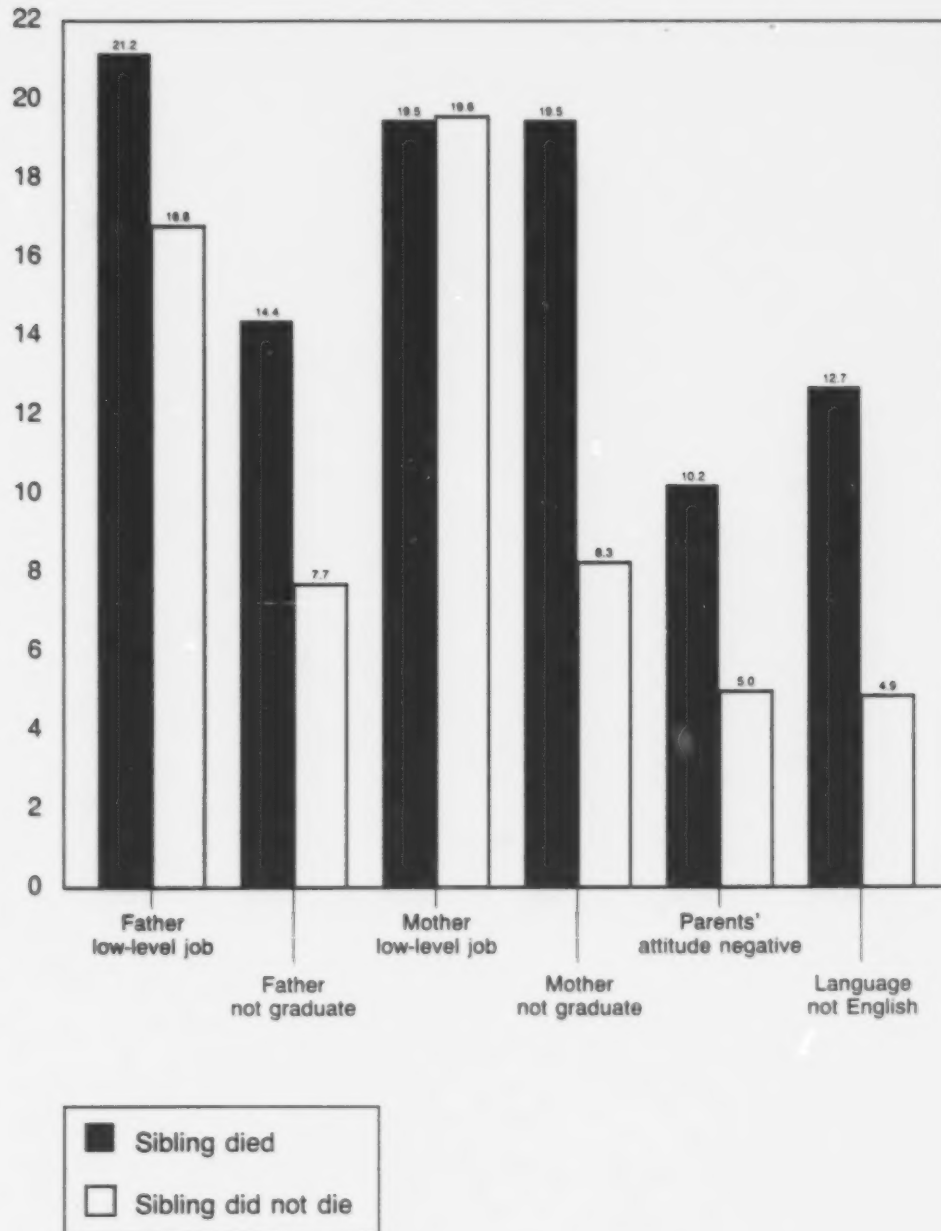


Chart 127

Father has low-level job (N = 3,659) vs. father does not have low-level job (N = 18,047)
Compared on socioeconomic situation risk items (percent)

(Data from table 34)

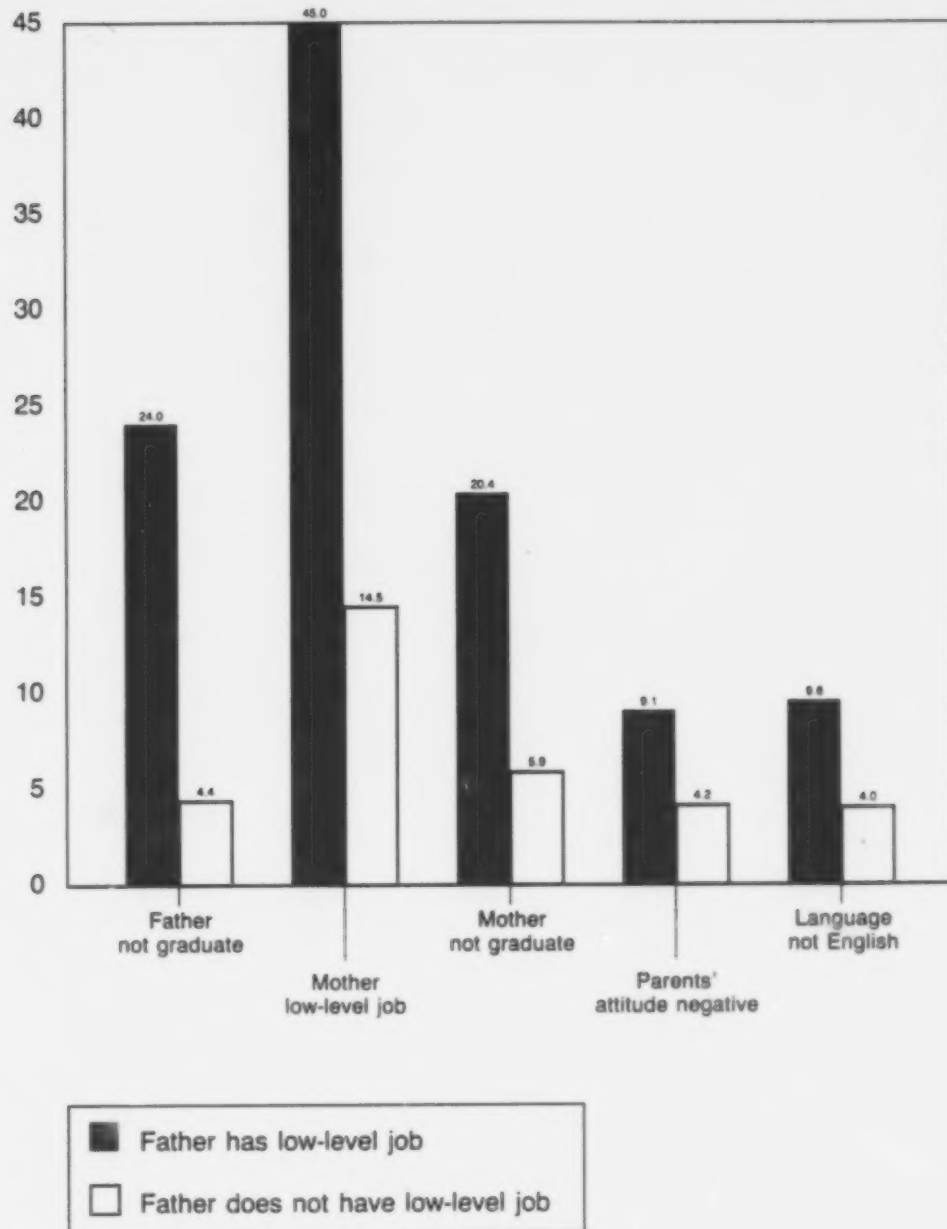


Chart 128

Father not graduate (N = 1,680) vs. father did graduate (N = 20,026)
Compared on socioeconomic situation risk items (percent)

(Data from table 35)

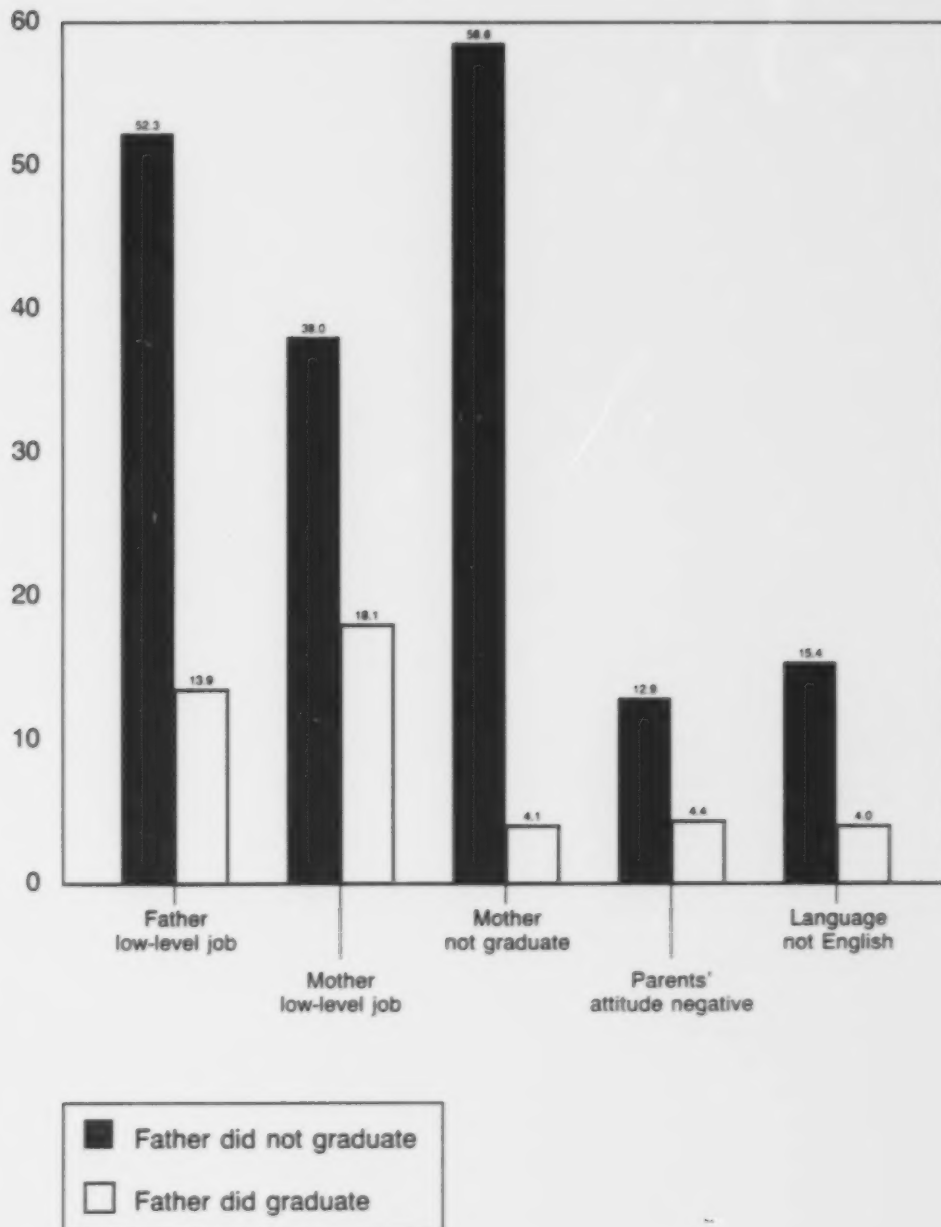


Chart 129

Mother has low-level job (N = 4,260) vs. mother does not have low-level job (N = 17,446)
 Compared on socioeconomic situation risk items (percent)
 (Data from table 36)

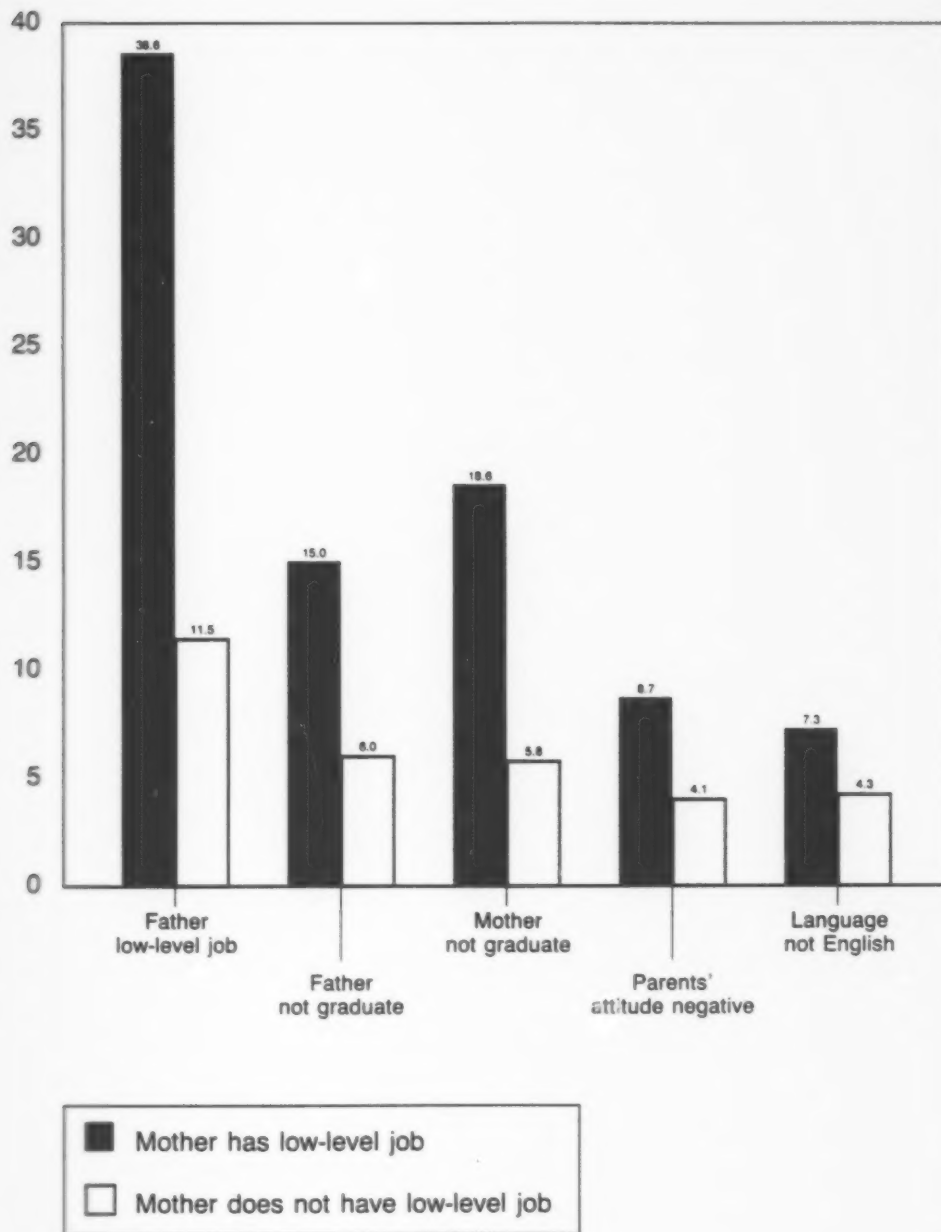


Chart 130

Mother did not graduate (N = 1,809) vs. mother did graduate (N = 19,897)
Compared on socioeconomic situation risk items (percent)

(Data from table 37)

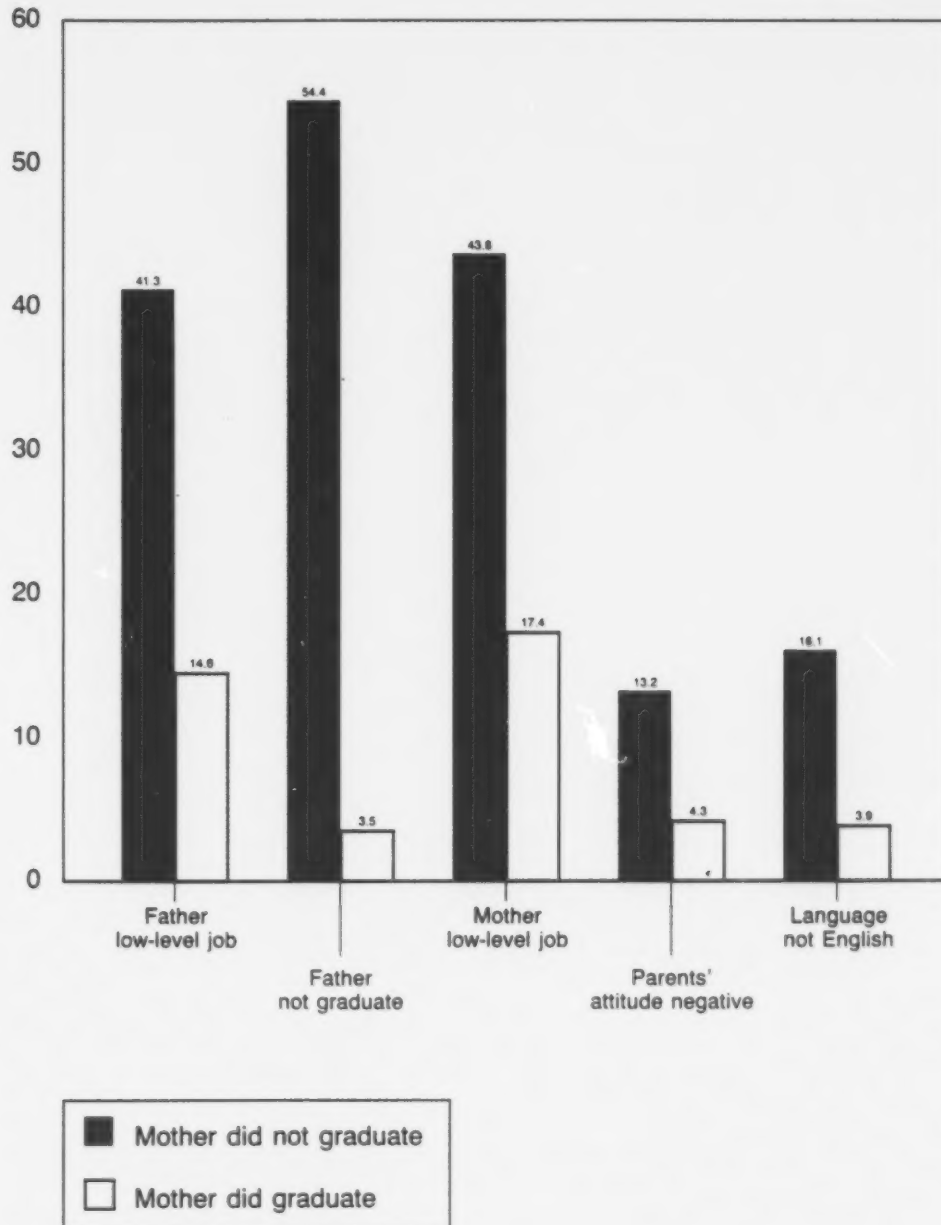


Chart 131

Parents' attitude negative (N = 1,089) vs. parents' attitude not negative (N = 20,617)
Compared on socioeconomic situation risk items (percent)

(Data from table 38)

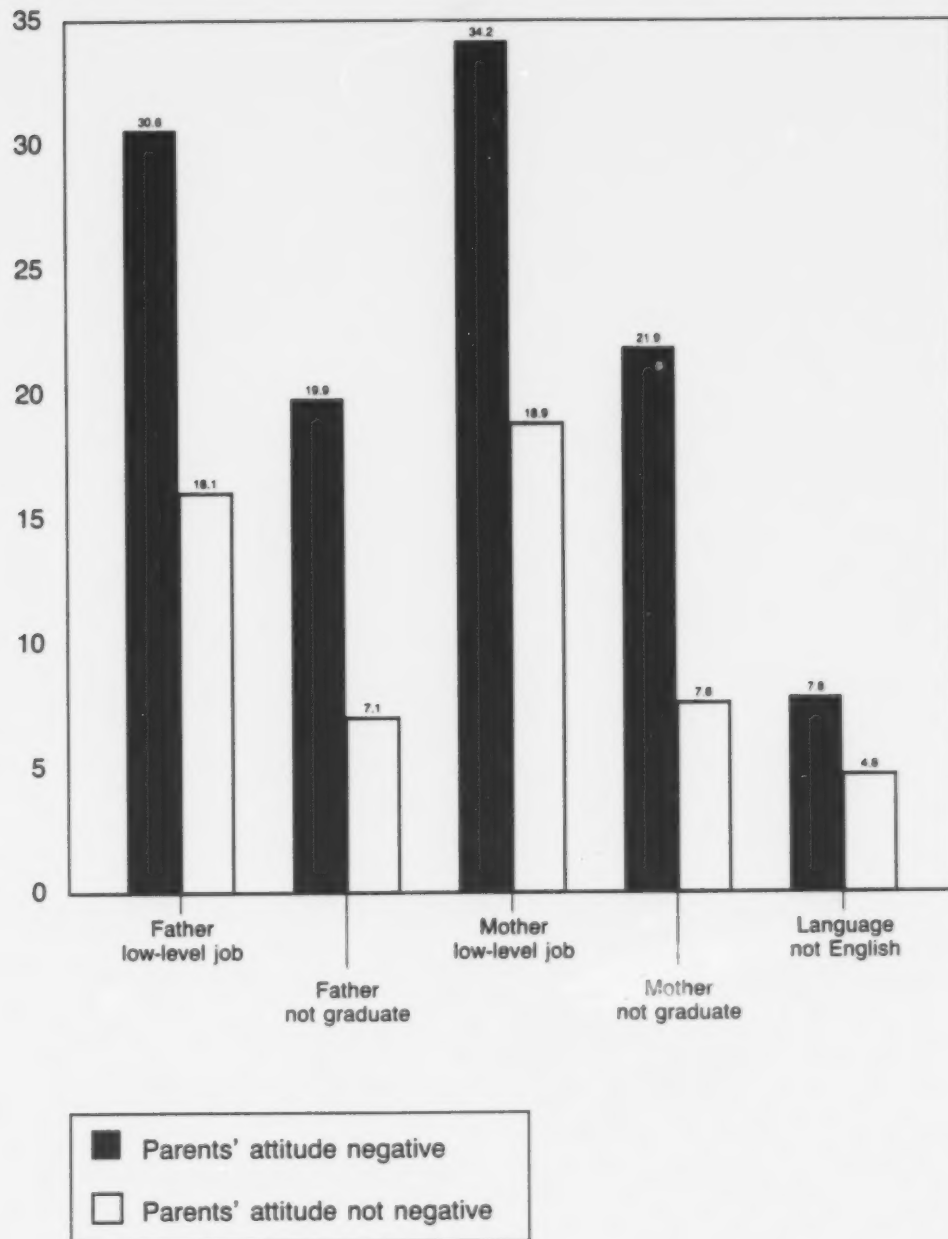


Chart 132

No English spoken (N = 1,067) vs. English spoken (N = 20,639)
Compared on socioeconomic situation risk items (percent)

(Data from table 39)

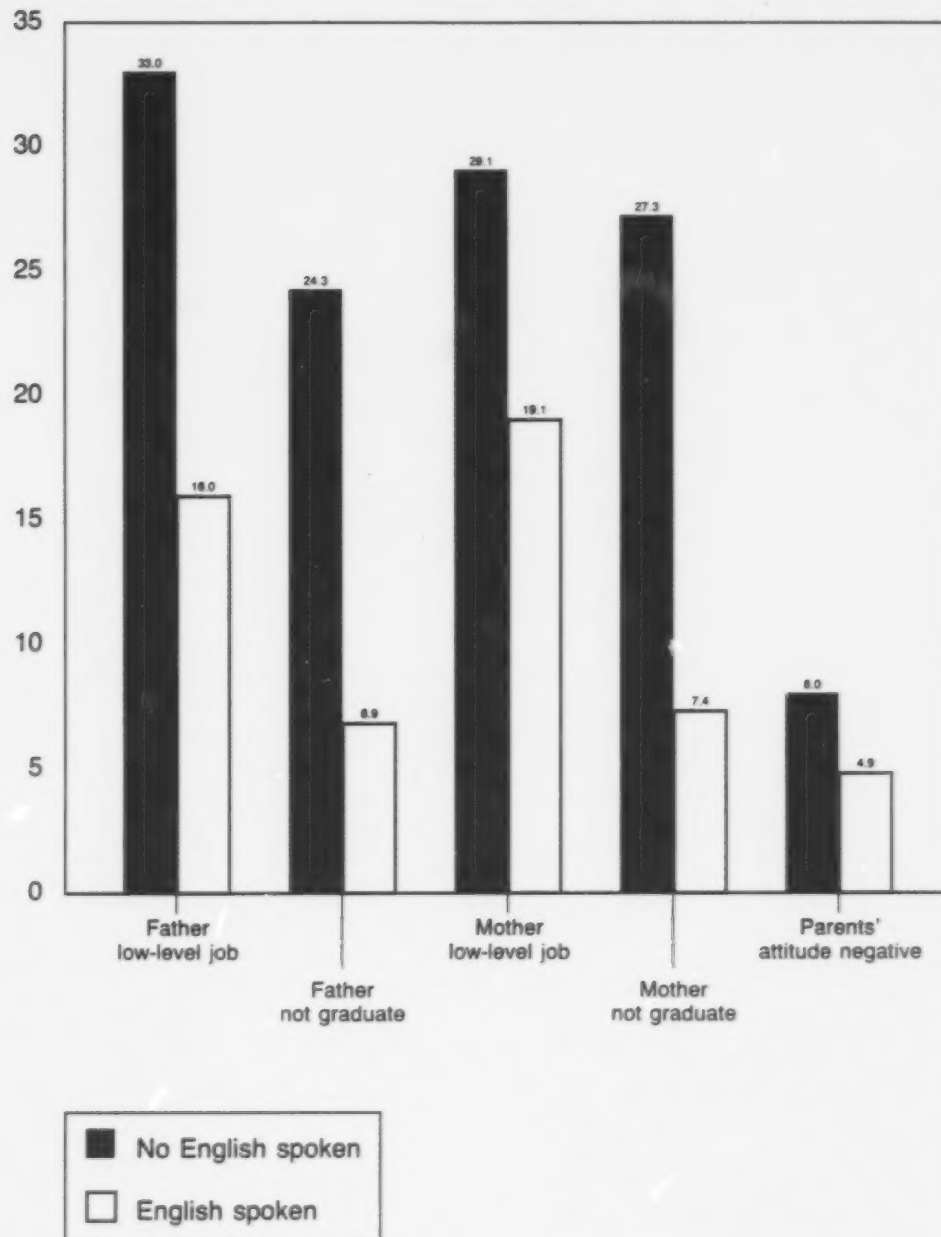


Chart 133

From broken home (N = 7,505) vs. real parents (N = 14,201)
Compared on socioeconomic situation risk items (percent)

(Data from table 40)

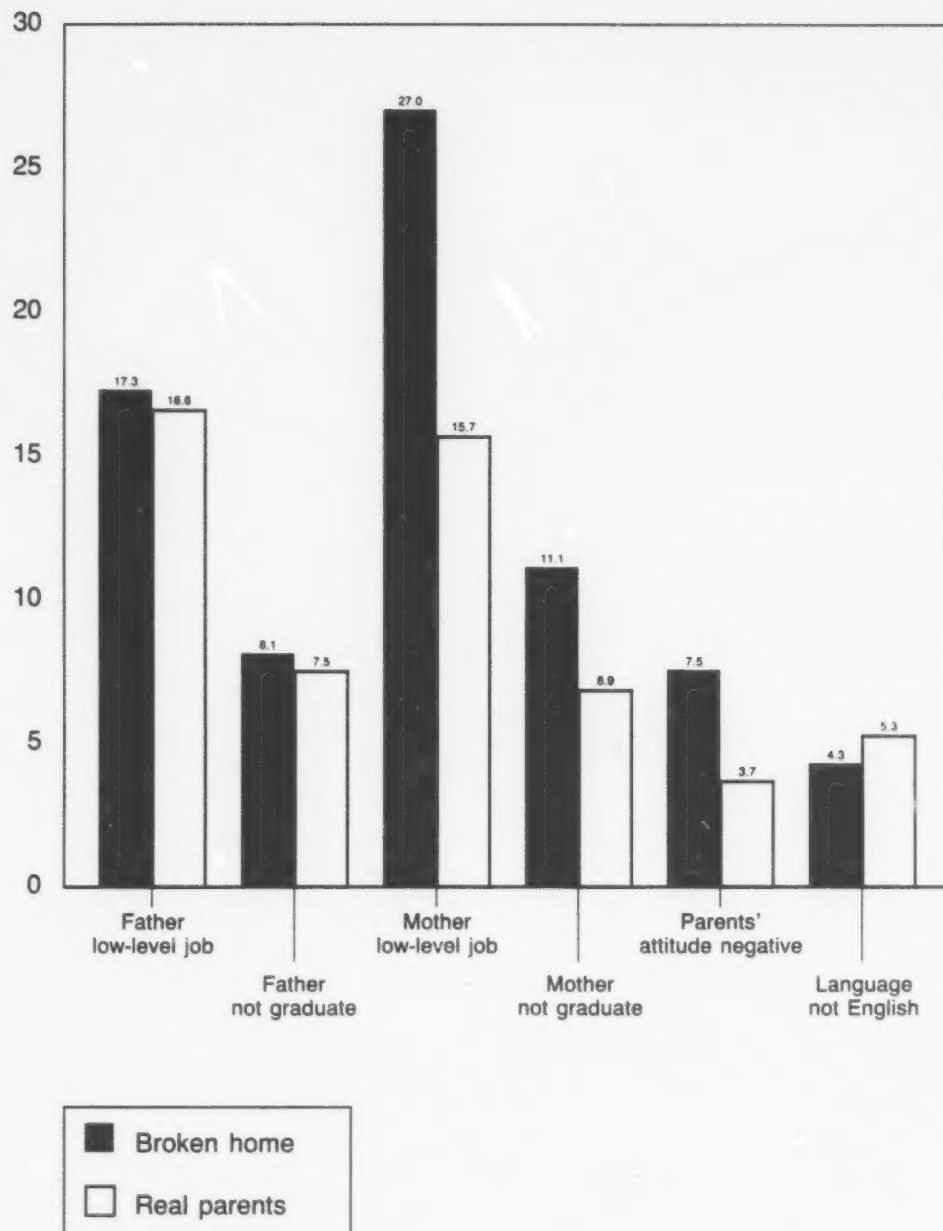


Chart 134

Moved frequently (N = 3,432) vs. did not move frequently (N = 18,274)
Compared on socioeconomic situation risk items (percent)

(Data from table 41)

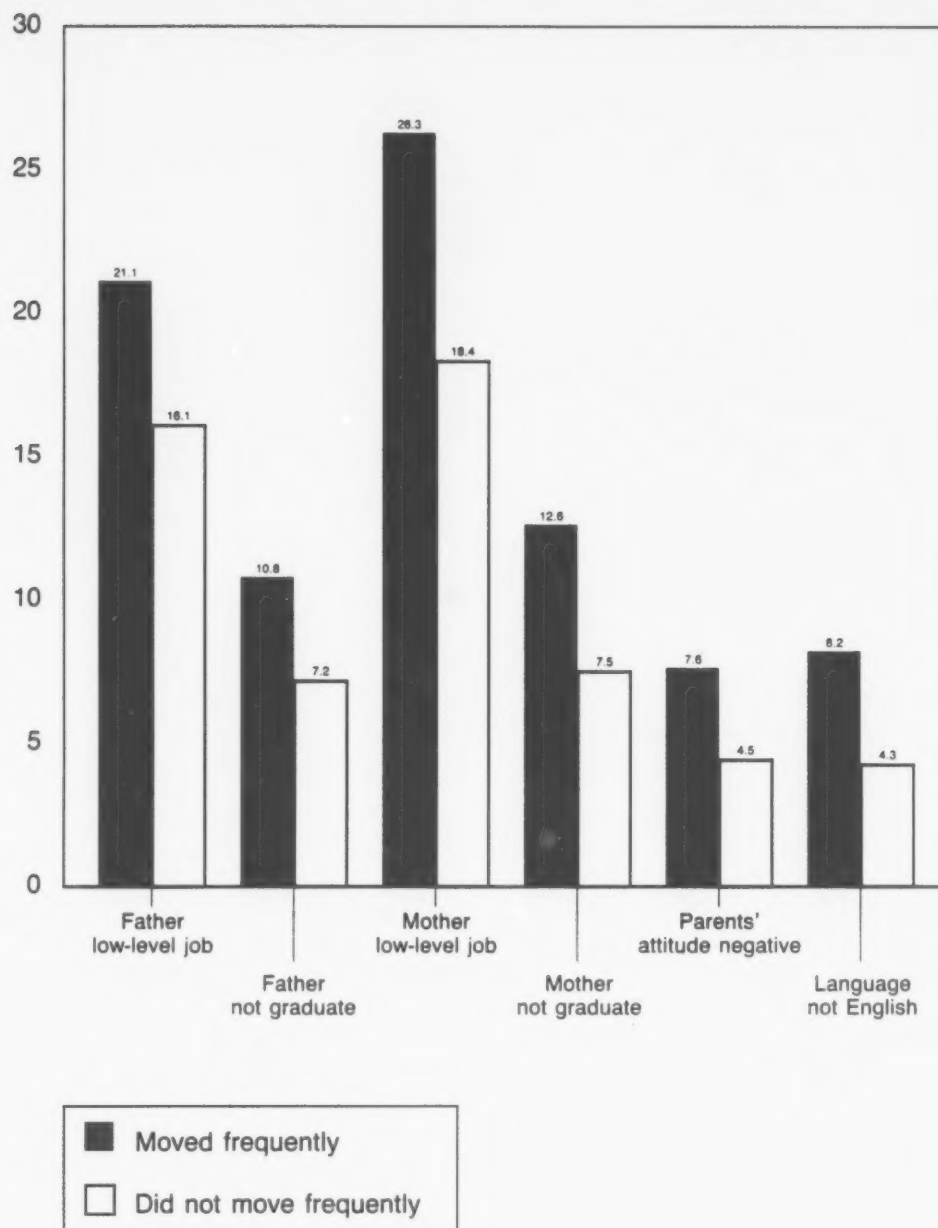


Chart 135

Changed schools frequently (N = 5,068) vs. did not change schools frequently (N = 16,638)
Compared on socioeconomic situation risk items (percent)

(Data from table 42)

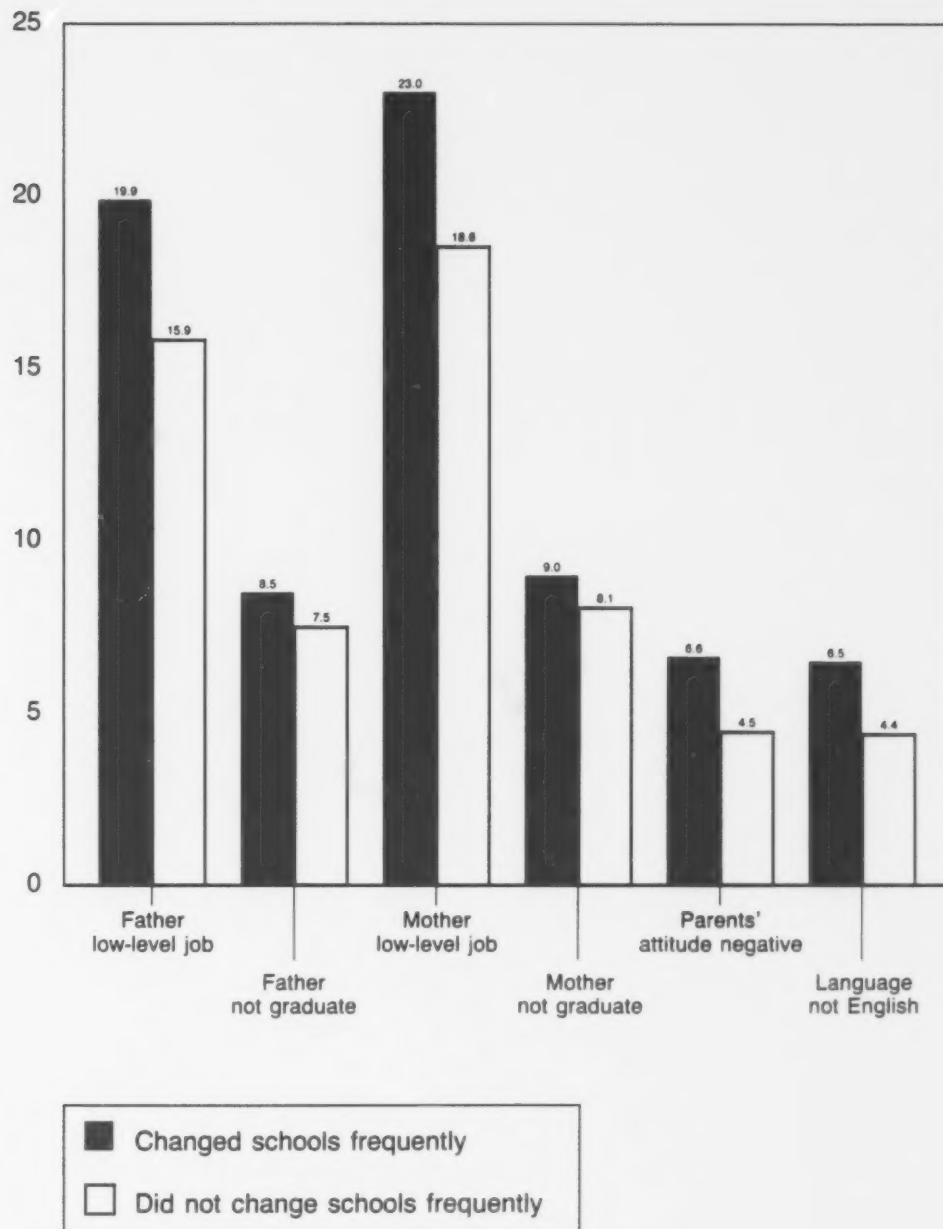


Chart 136

Parents divorced in last year (N = 1,484) vs. parents did not divorce in last year (N = 20,222)
Compared on socioeconomic situation risk items (percent)

(Data from table 43)

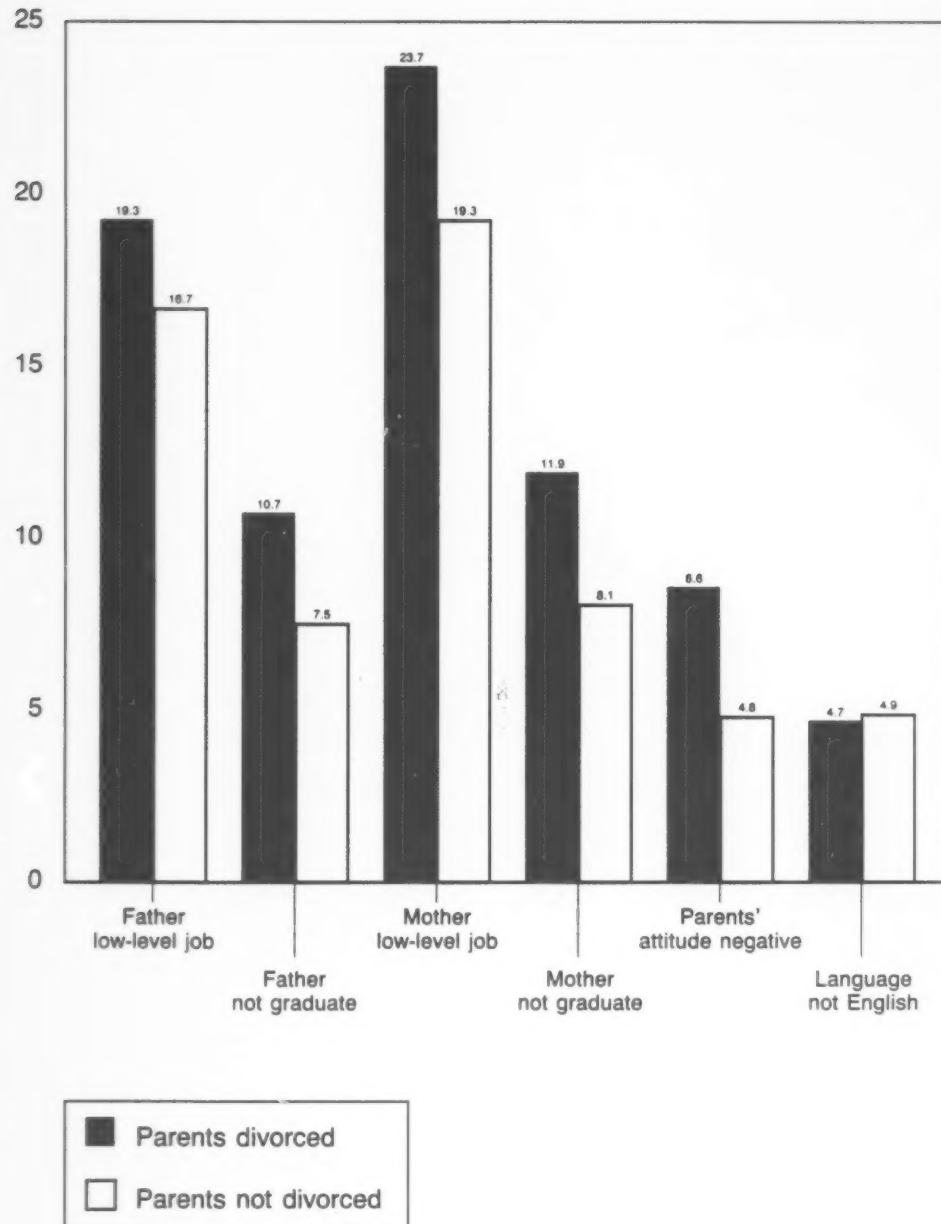


Chart 137

Suspended from school (N = 1,290) vs. nonsuspended (N = 20,416)
Compared on family instability risk items (percent)

(Data from table 10)

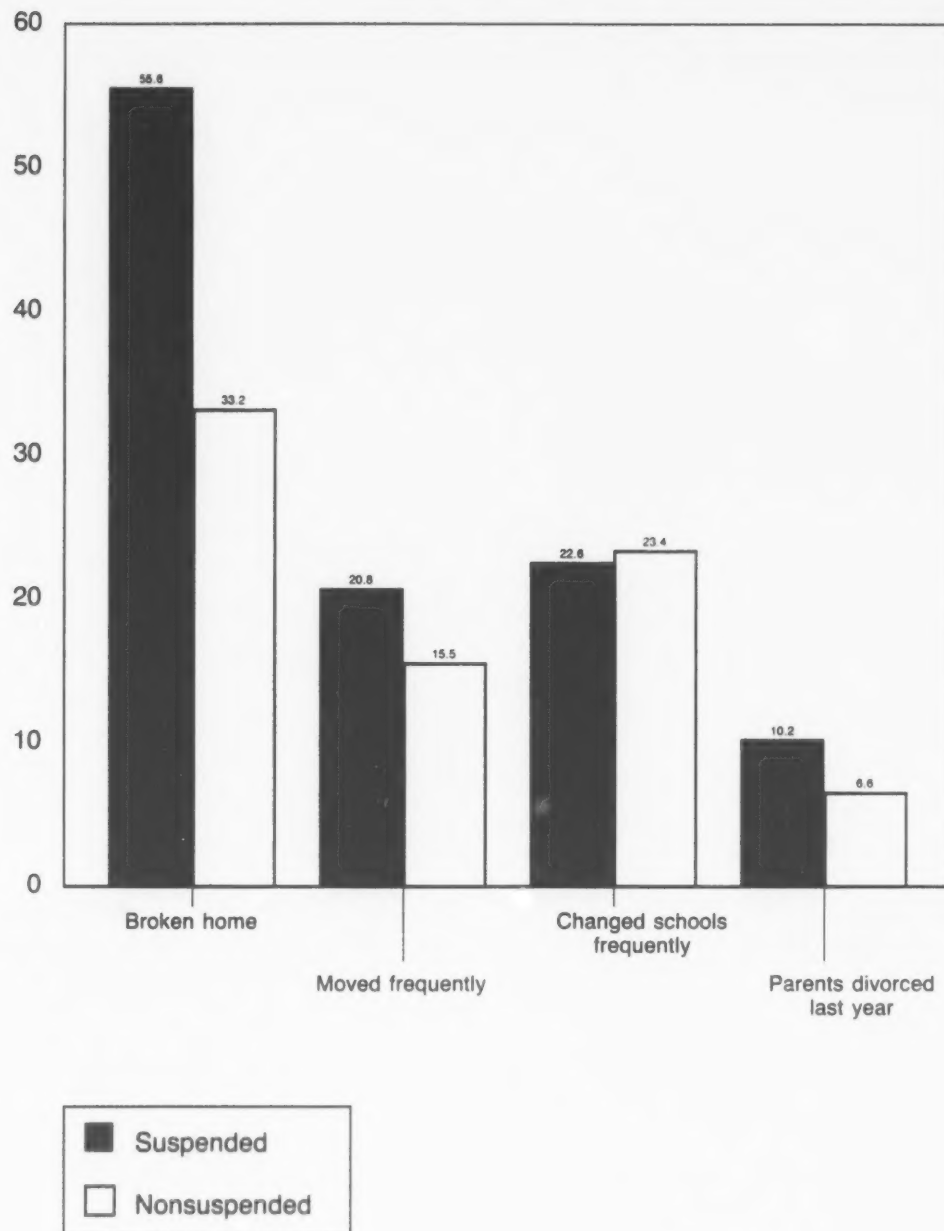


Chart 138

Attempted suicide (N = 176) vs. did not attempt suicide (N = 21,530)
Compared on family instability risk items (percent)

(Data from table 11)

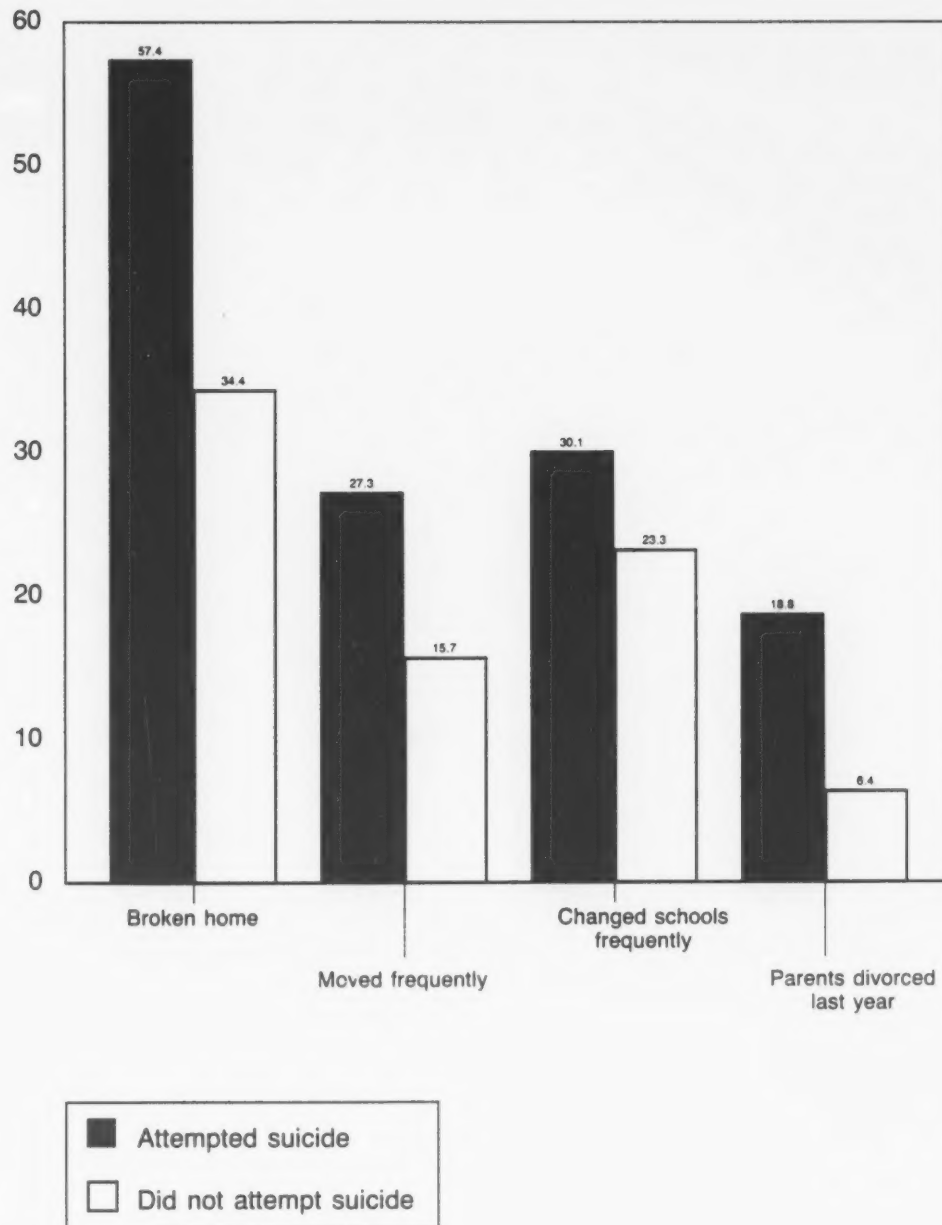


Chart 139

Involved in pregnancy (N = 124) vs. not involved in pregnancy (N = 21,582)
Compared on family instability risk items (percent)

(Data from table 12)

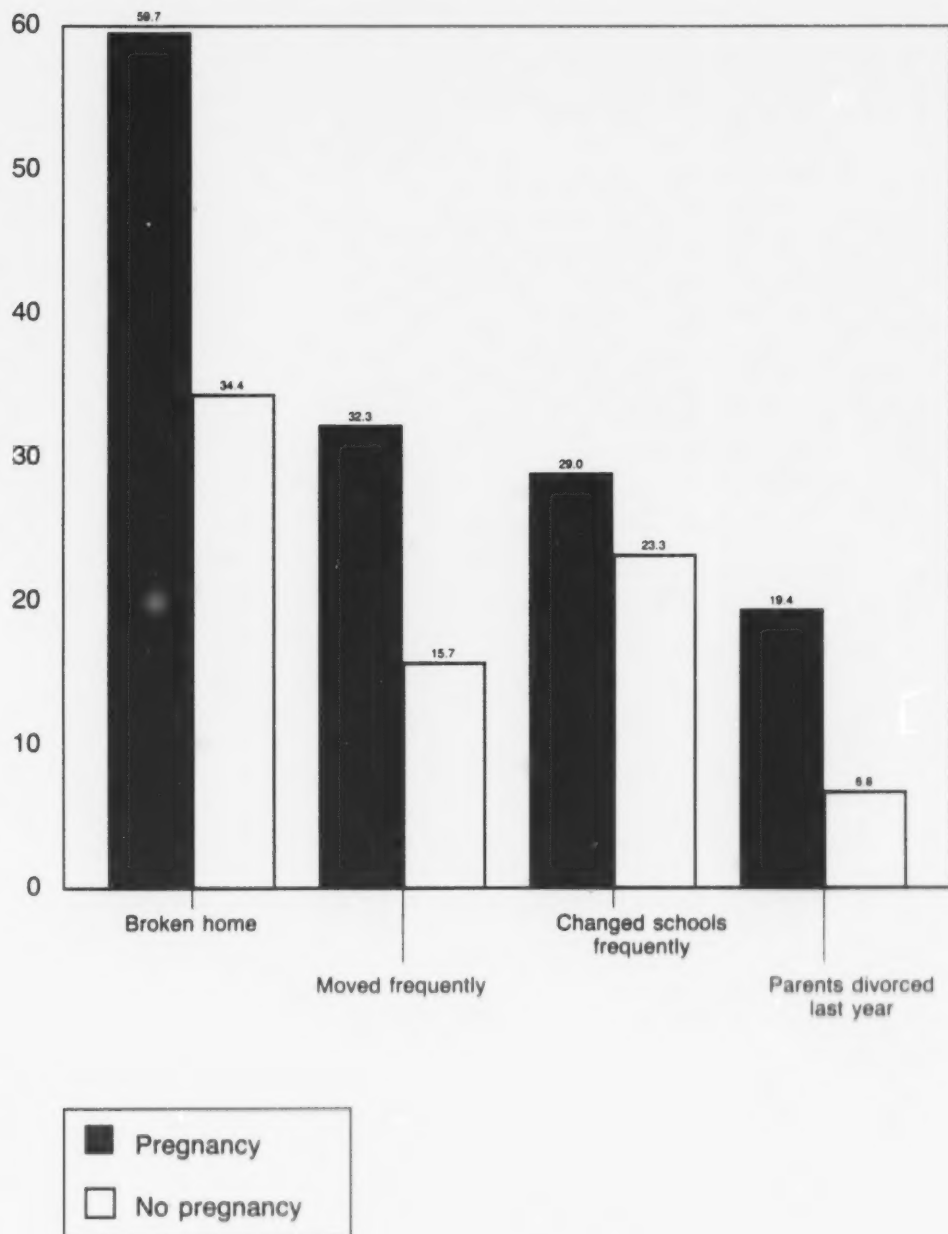


Chart 140

Student sold drugs (N = 122) vs. student did not sell drugs (N = 21,584)
Compared on family instability risk items (percent)

(Data from table 13)

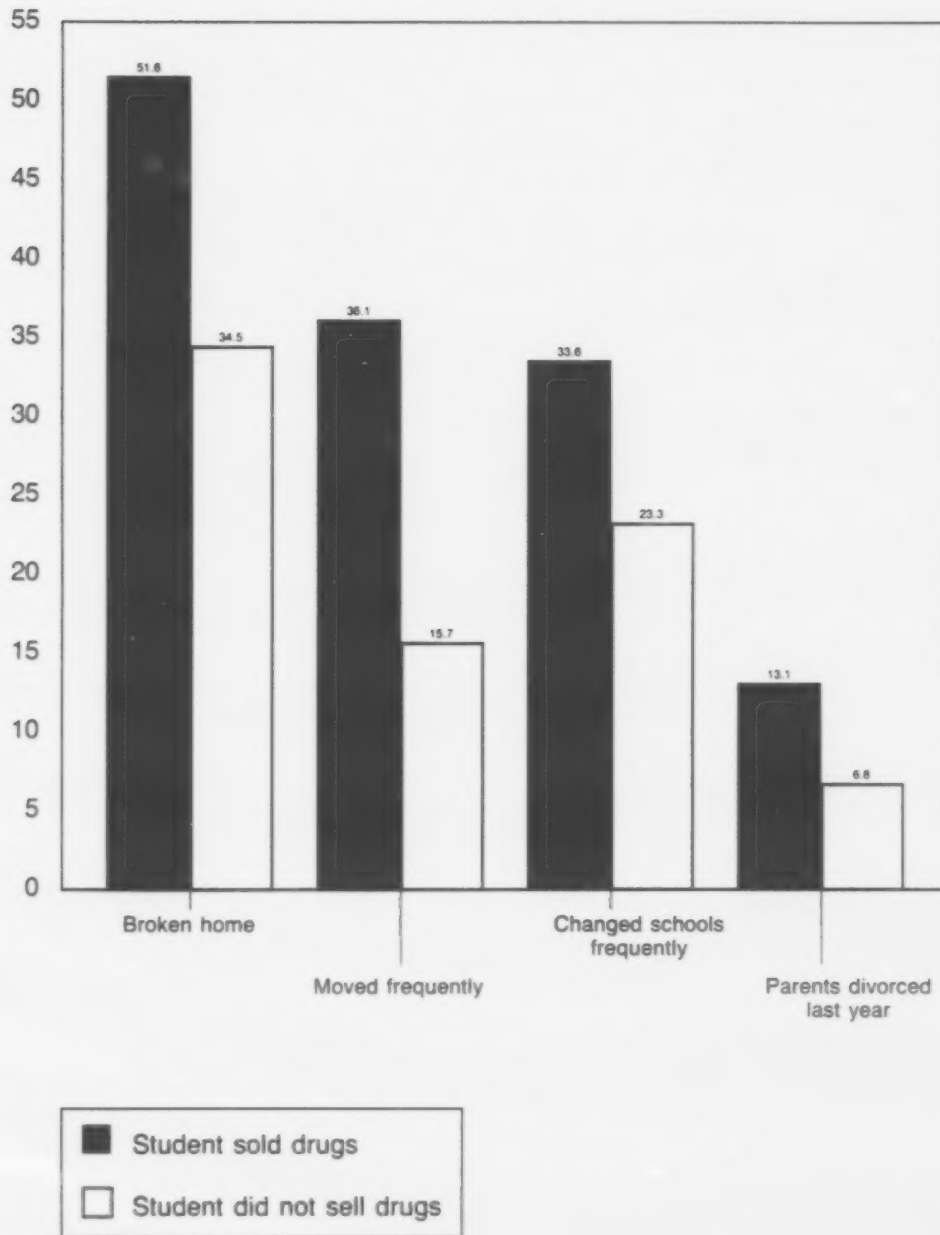


Chart 141

Student used drugs (N = 632) vs. student did not use drugs (N = 21,074)
Compared on family instability risk items (percent)

(Data from table 14)

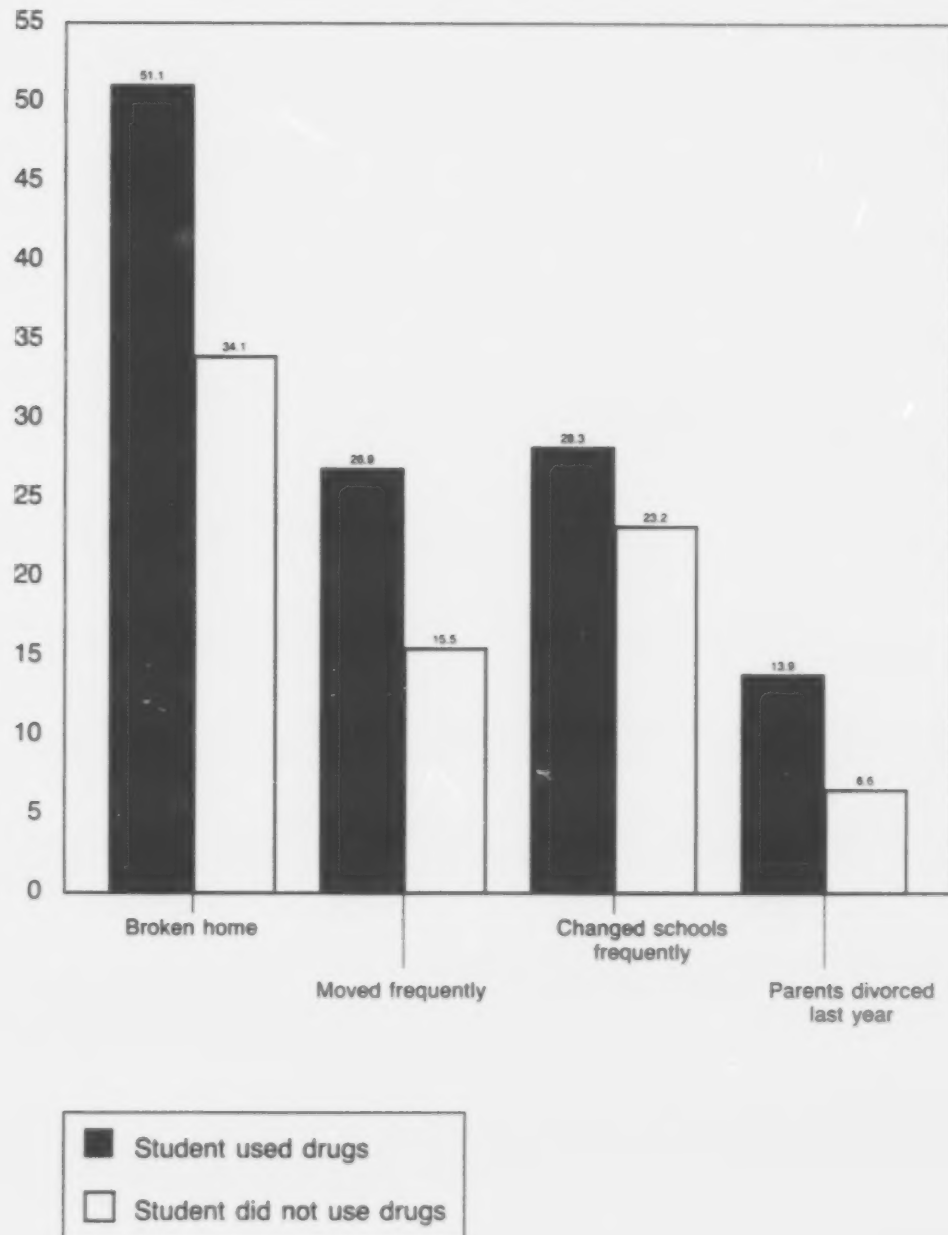


Chart 142

Family used drugs (N = 749) vs. family did not use (N = 20,957)
Compared on family instability risk items (percent)

(Data from table 15)

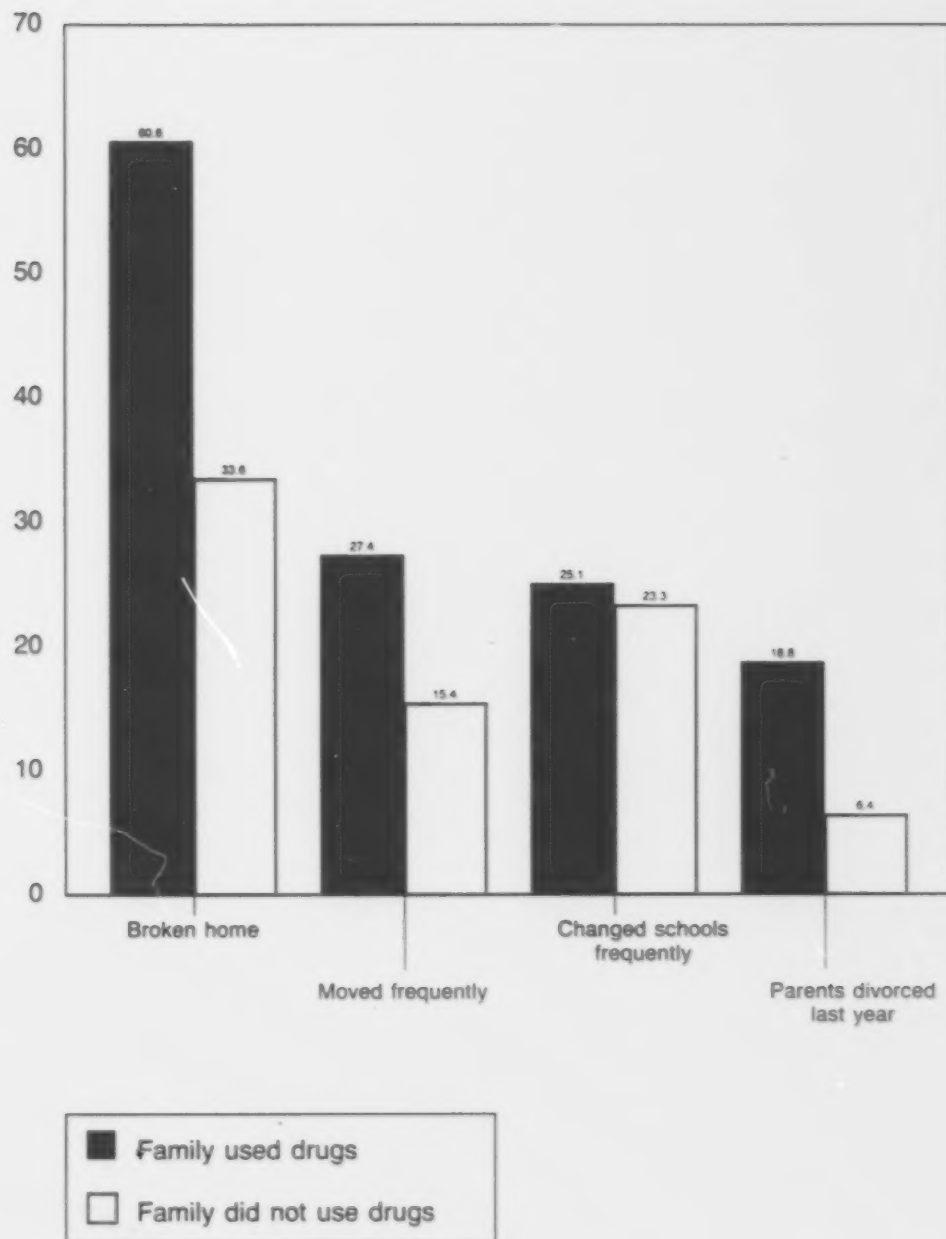


Chart 143

Student used alcohol (N = 1,002) vs. student did not use alcohol (N = 20,704)
Compared on family instability risk items (percent)

(Data from table 16)

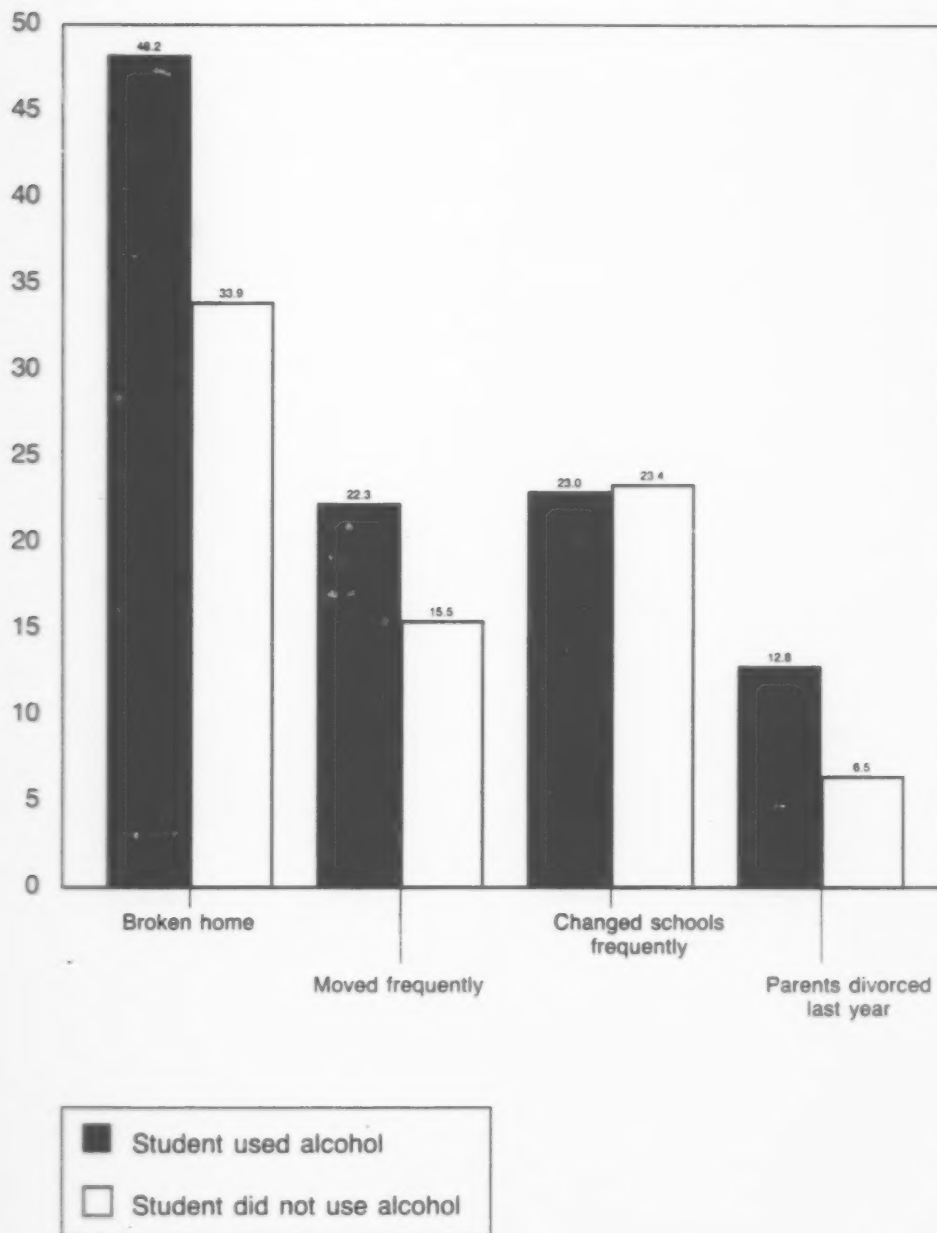


Chart 144

Parent alcoholic (N = 784) vs. parent not alcoholic (N = 20,922)
Compared on family instability risk items (percent)

(Data from table 17)

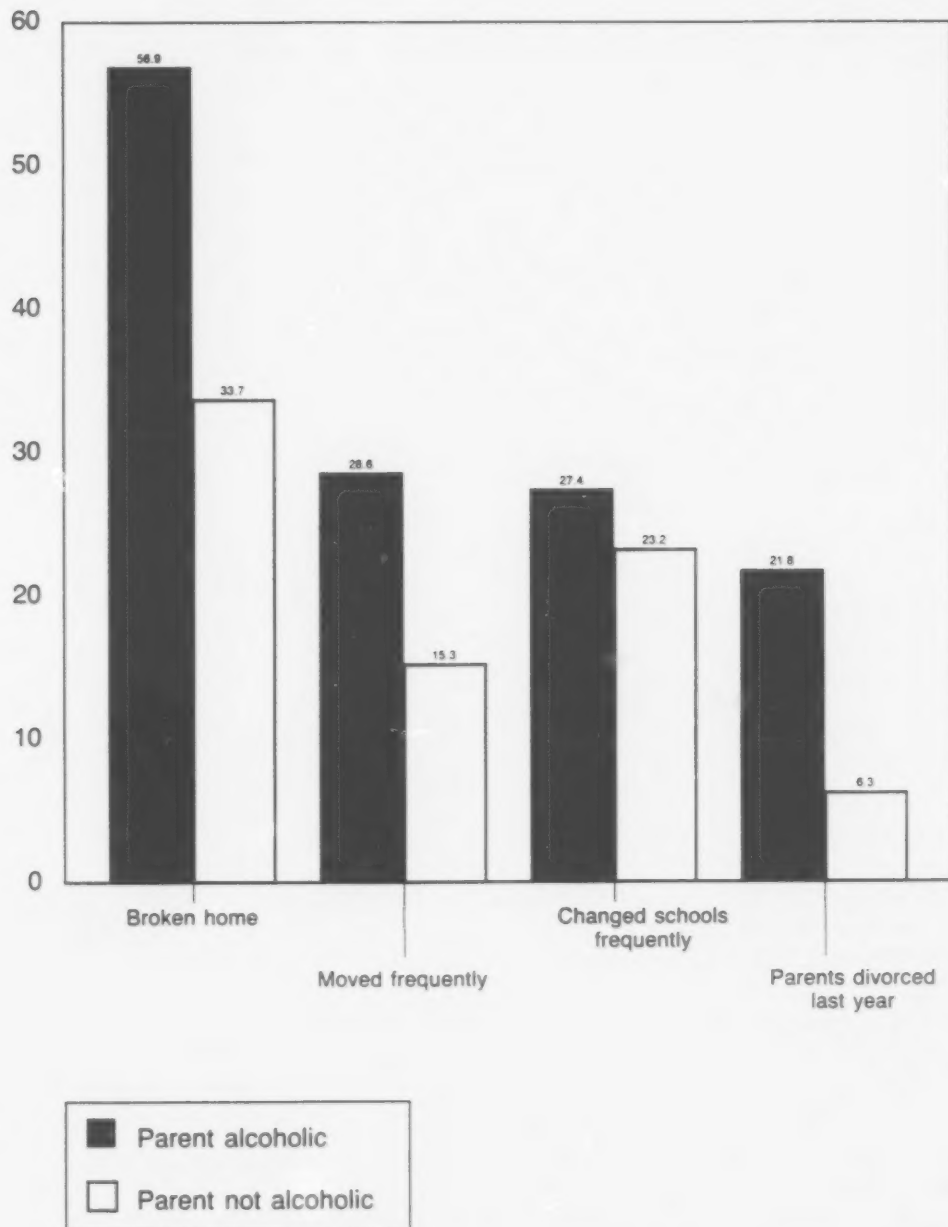


Chart 145

Student was arrested (N = 280) vs. student not arrested (N = 21,426)
Compared on family instability risk items (percent)

(Data from table 18)

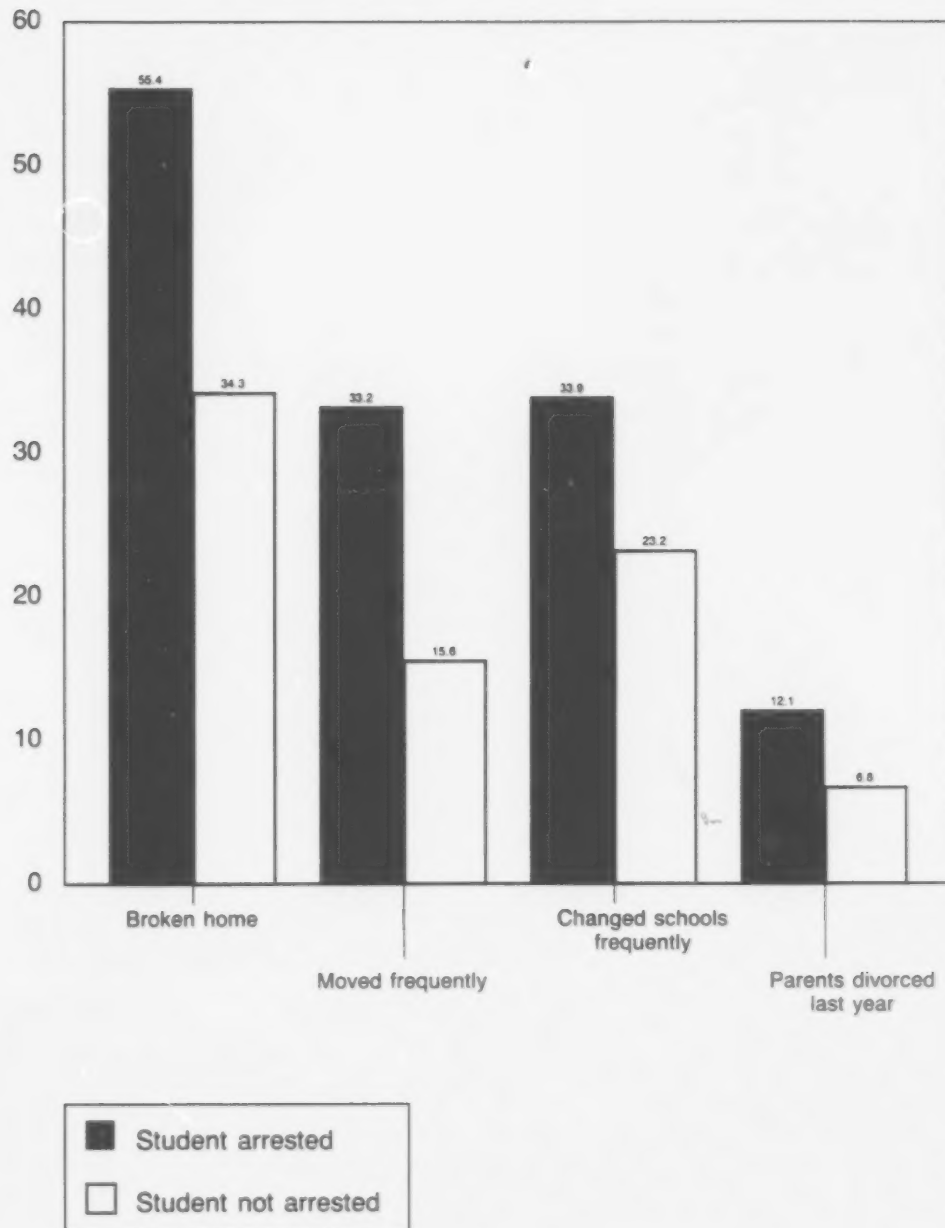


Chart 146

Student was abused (N = 406) vs. student was not abused (N = 21,300)
Compared on family instability risk items (percent)

(Data from table 19)

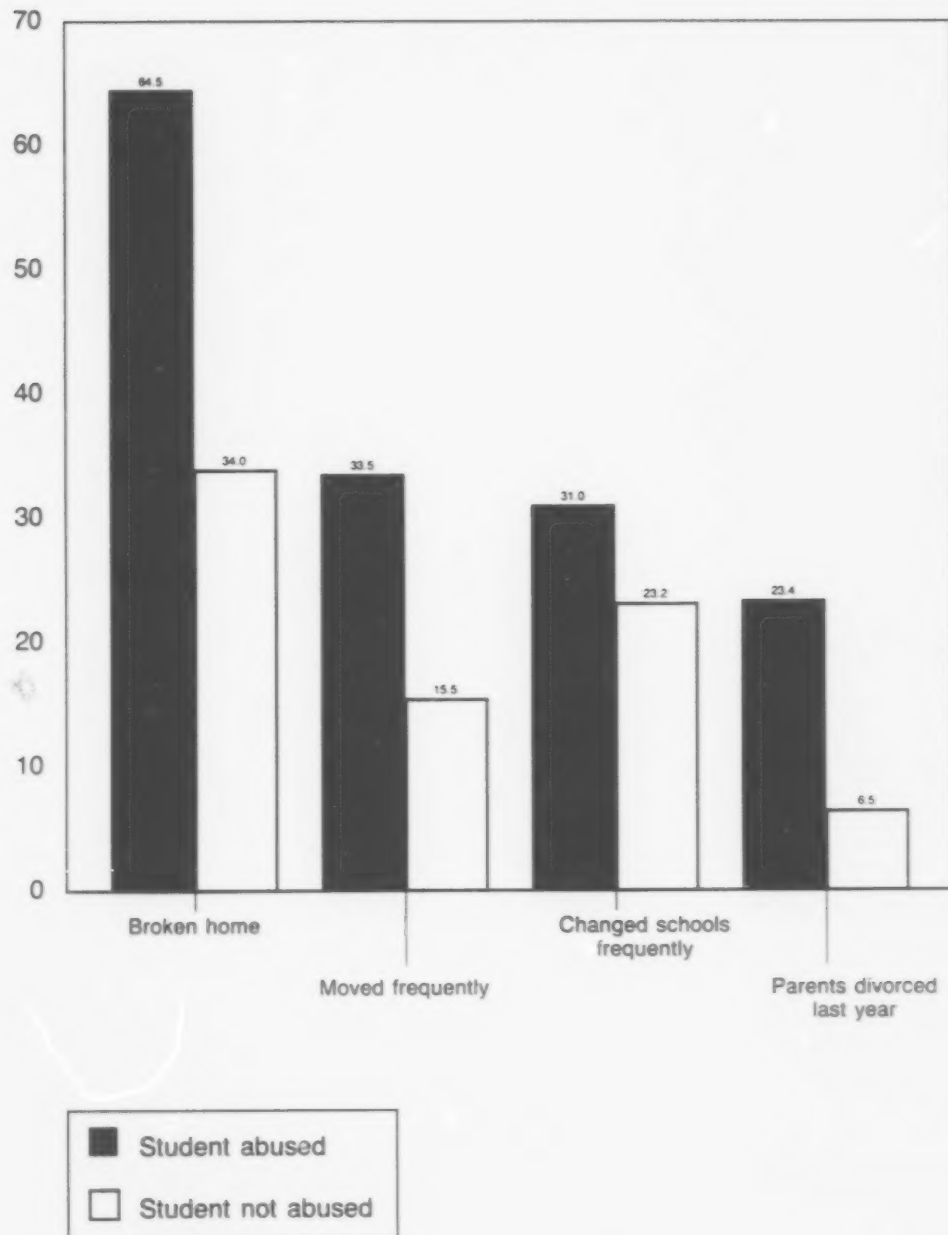


Chart 147

Low grades in school (N = 2,906) vs. grades not low (N = 18,800)
Compared on family instability risk items (percent)

(Data from table 20)

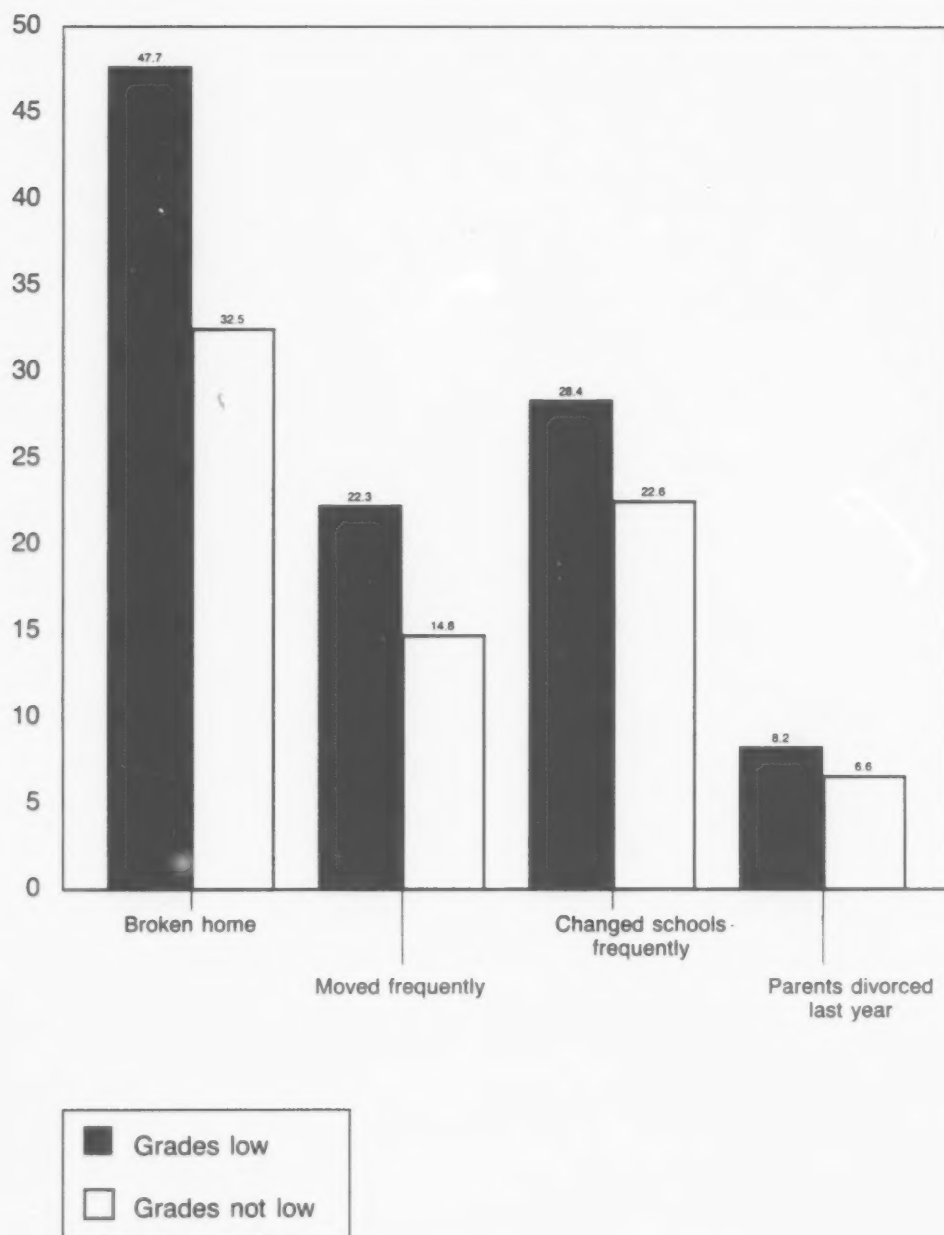


Chart 148

Student failed courses (N = 1,944) vs. student did not fail courses (N = 19,762)
Compared on family instability risk items (percent)

(Data from table 21)

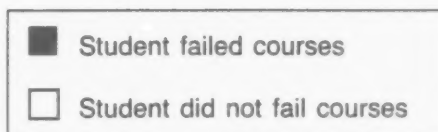
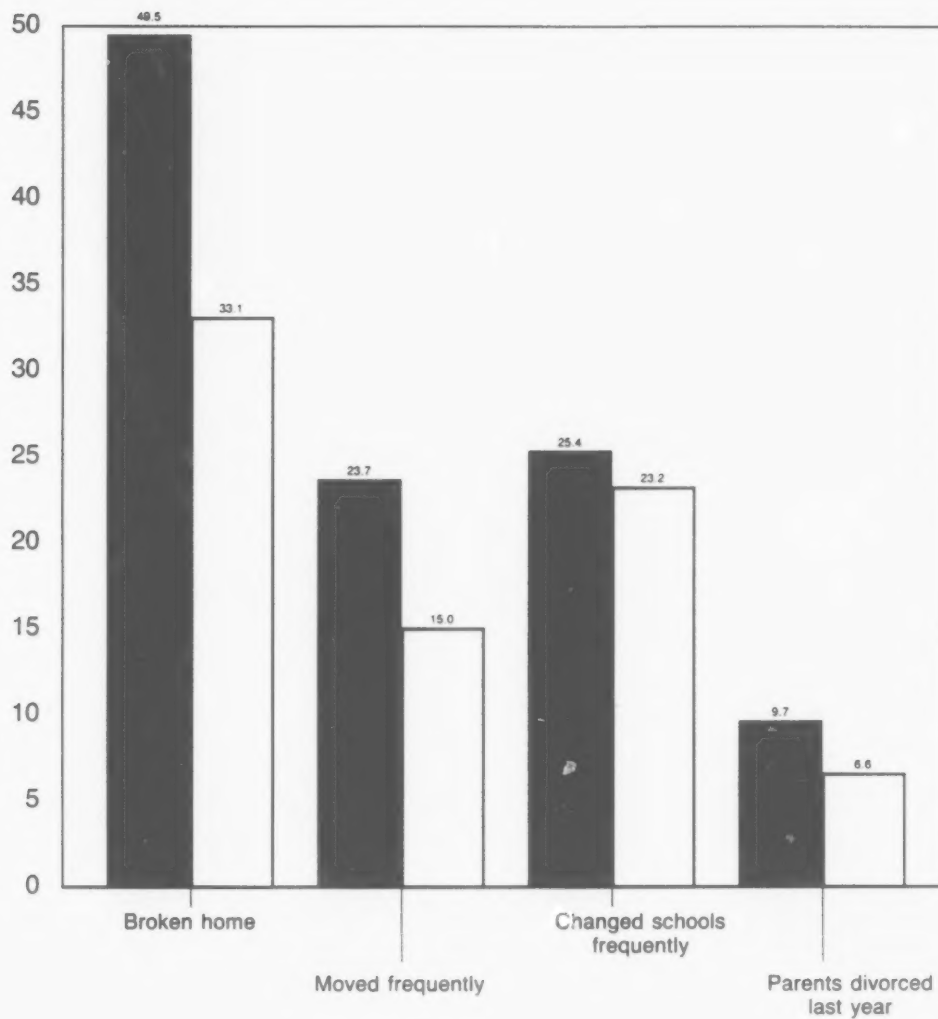


Chart 149

Student overage (N = 3,517) vs. student not overage (N = 18,189)
Compared on family instability risk items (percent)

(Data from table 22)

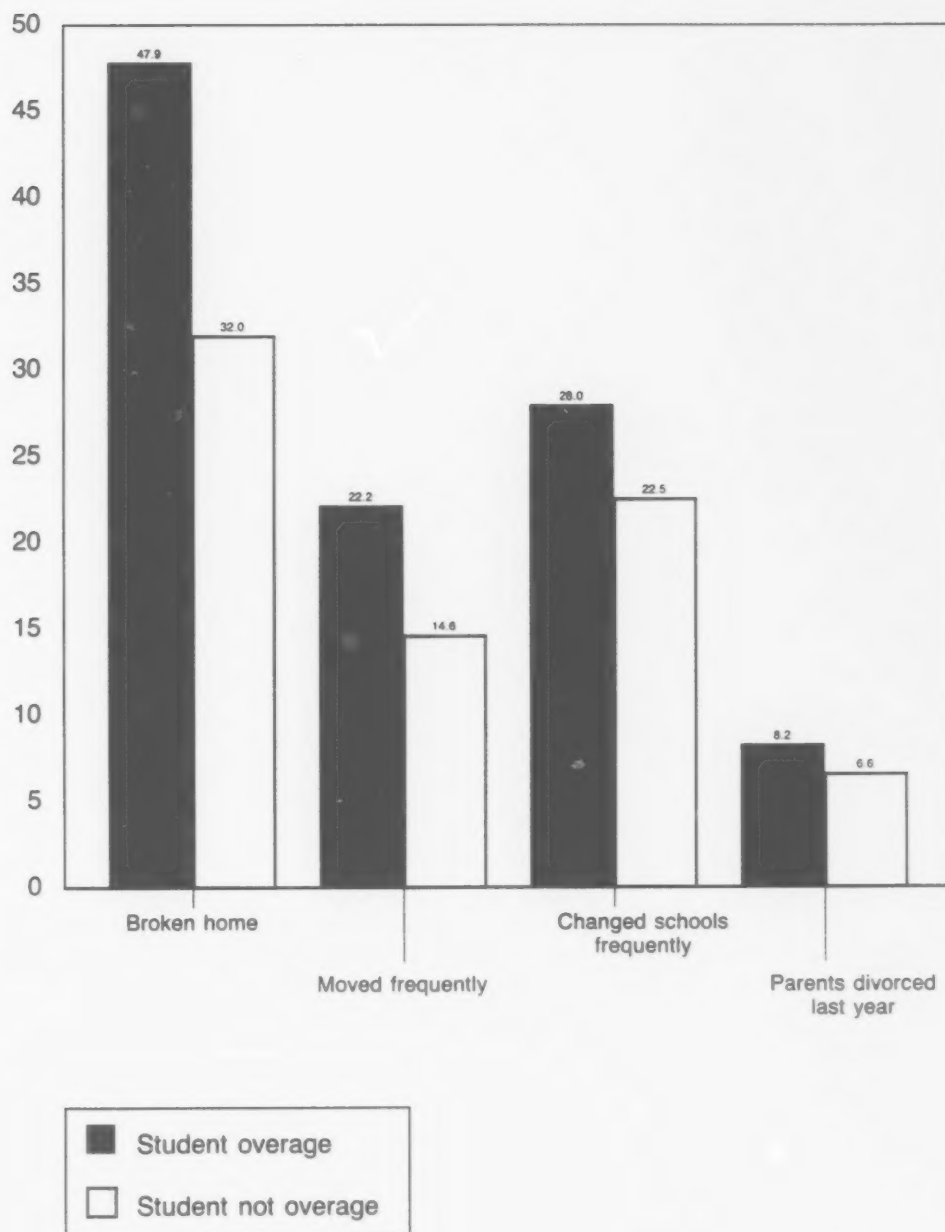


Chart 150

Student retained (N = 3,100) vs. student not retained (N = 18,606)
Compared on family instability risk items (percent)

(Data from table 23)

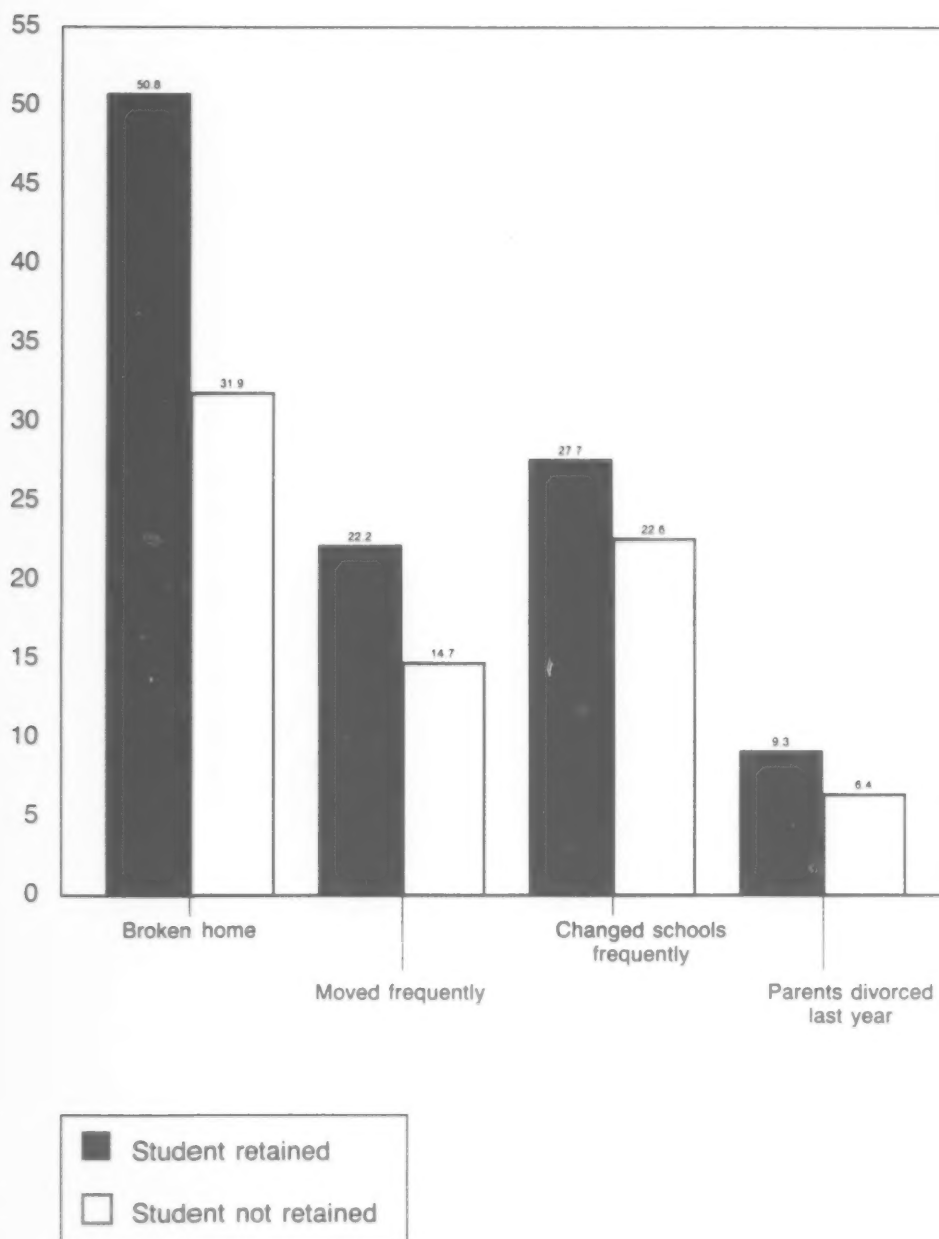


Chart 151

Excessive absences (N = 1,497) vs. no excessive absences (N = 20,209)
Compared on family instability risk items (percent)

(Data from table 24)

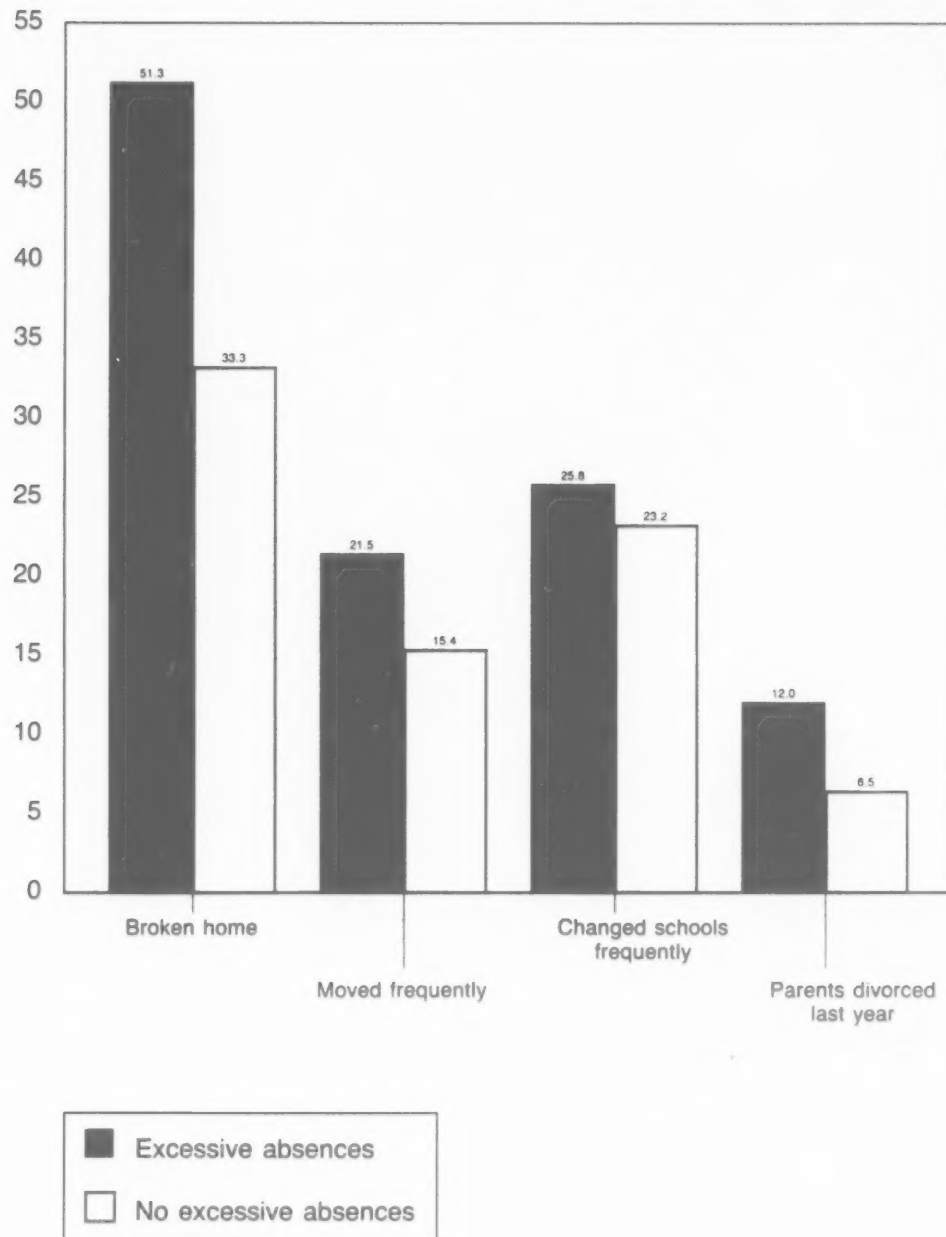


Chart 152

Low self-esteem (N = 2,686) vs. not low self-esteem (N = 19,020)
Compared on family instability risk items (percent)

(Data from table 25)

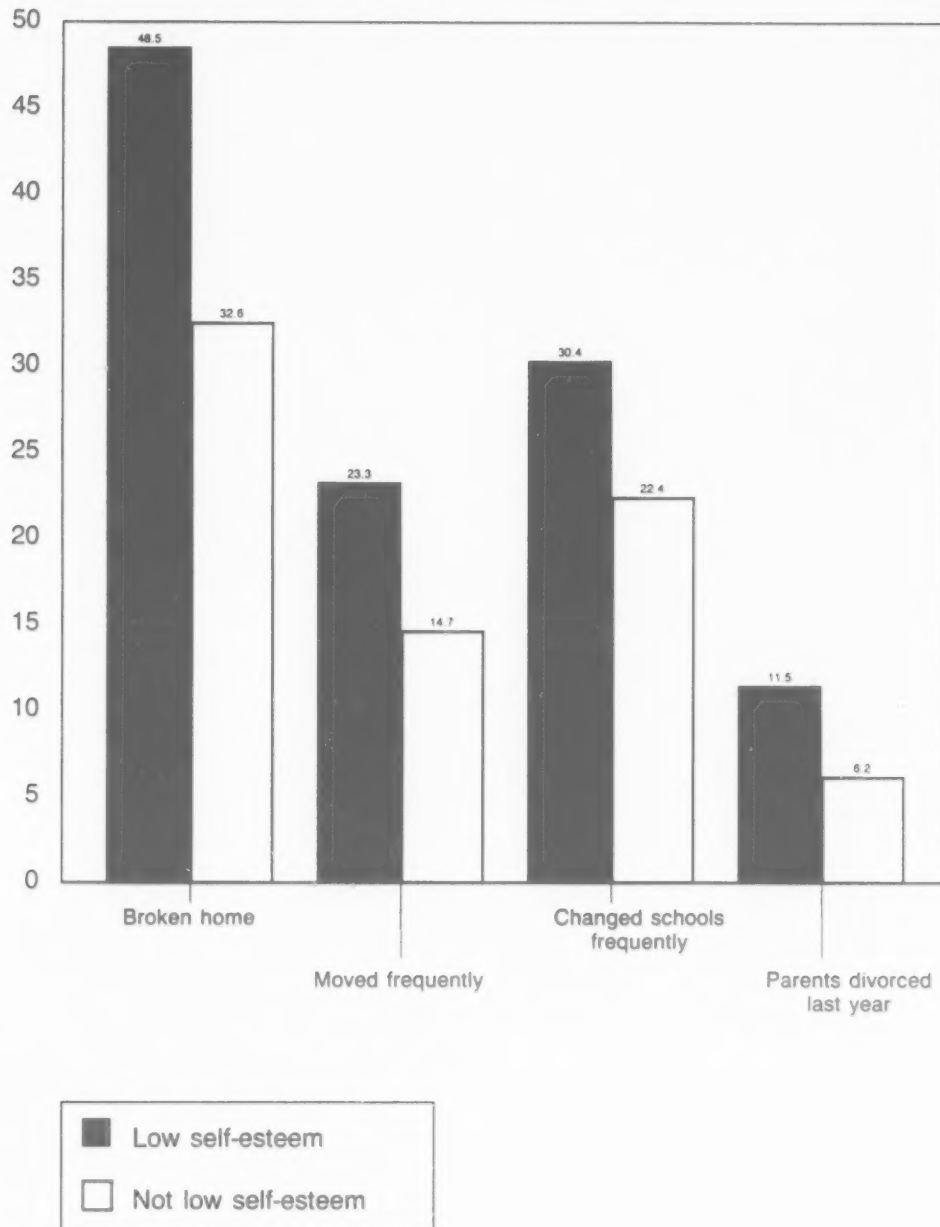


Chart 153

Referred to special education (N = 2,128) vs. not referred to special education (N = 19,578)
Compared on family instability risk items (percent)

(Data from table 26)

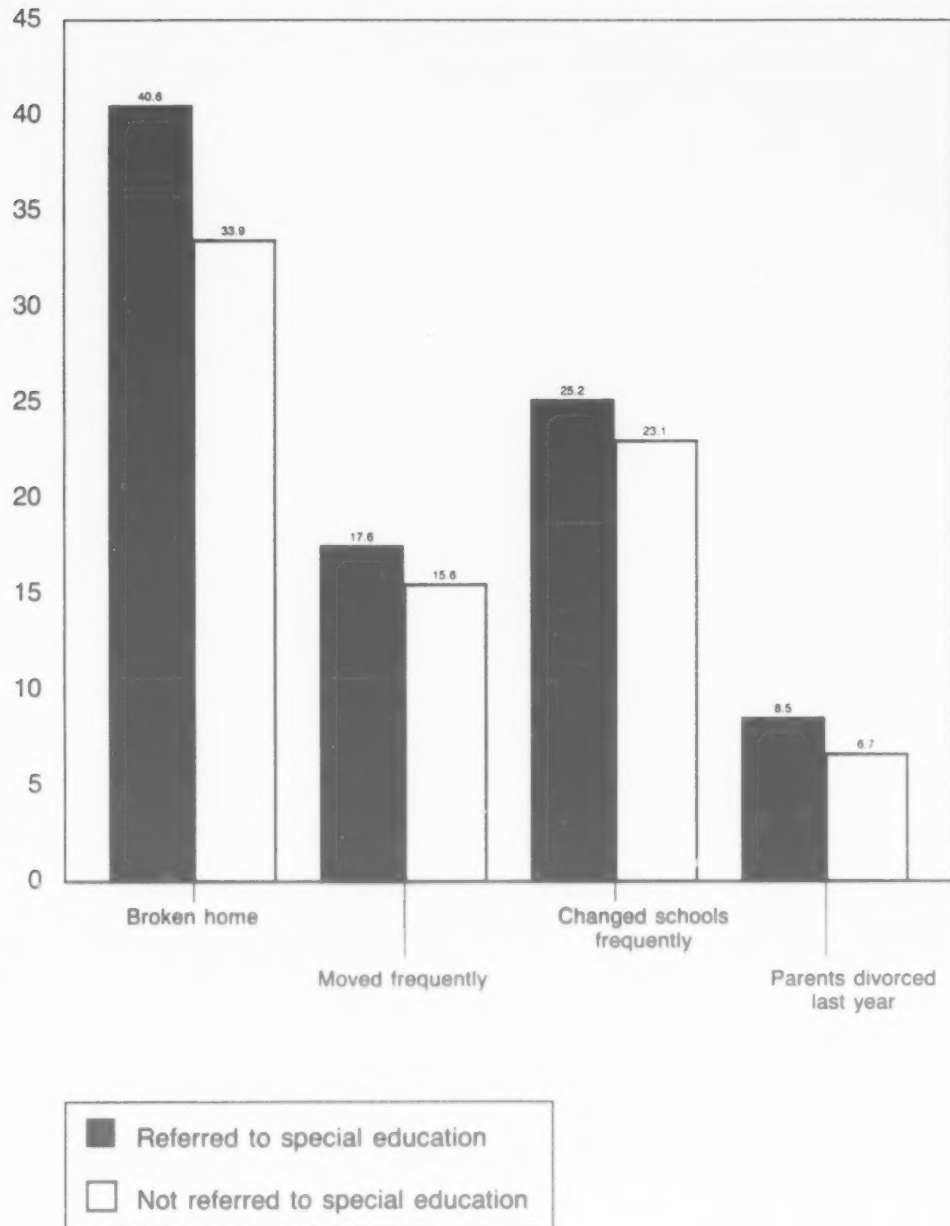


Chart 154

Low reading scores (N = 2,037) vs. not low reading scores (N = 19,669)
Compared on family instability risk items (percent)

(Data from table 27)

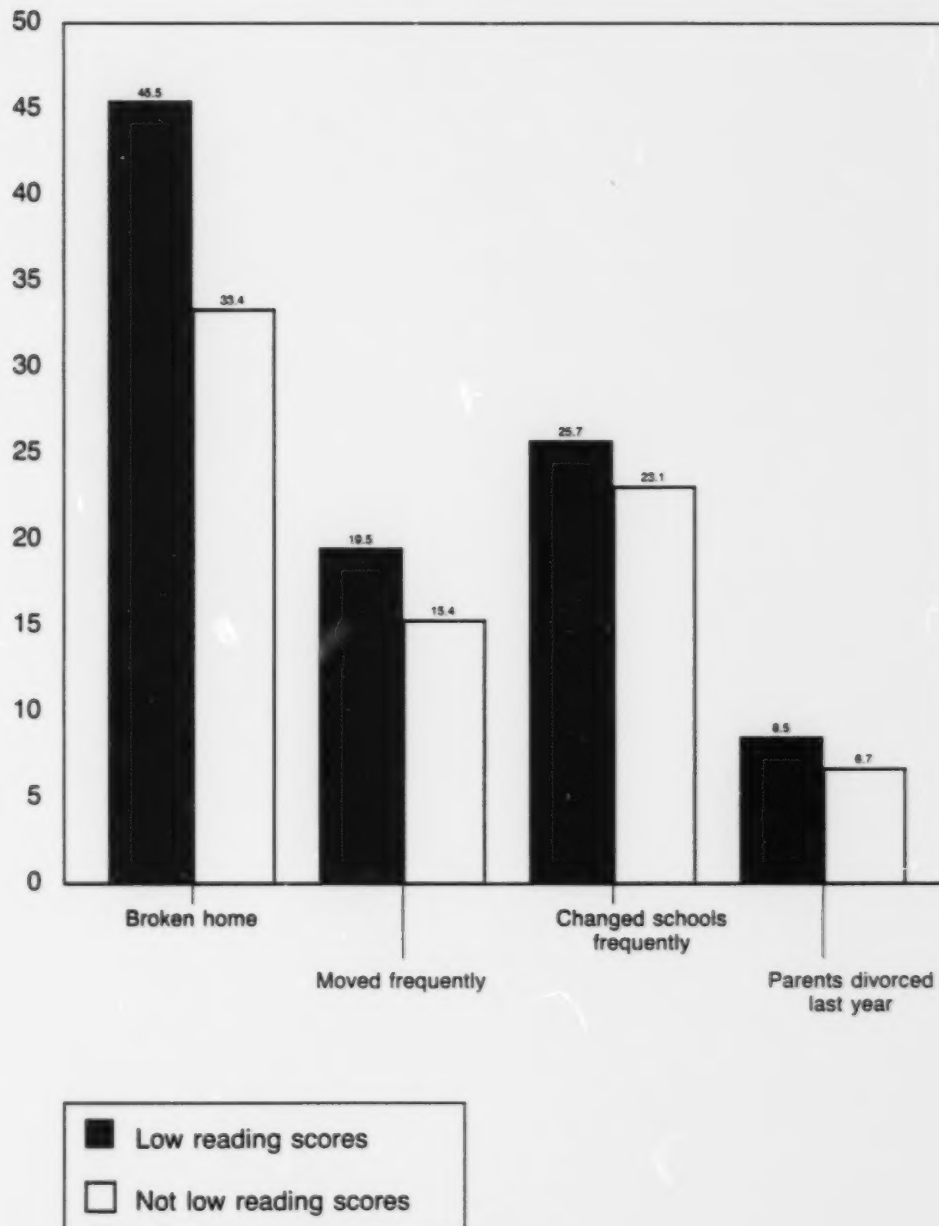


Chart 155

Parent sick in last year (N = 878) vs. parent not sick in last year (N = 20,828)
Compared on family instability risk items (percent)

(Data from table 28)

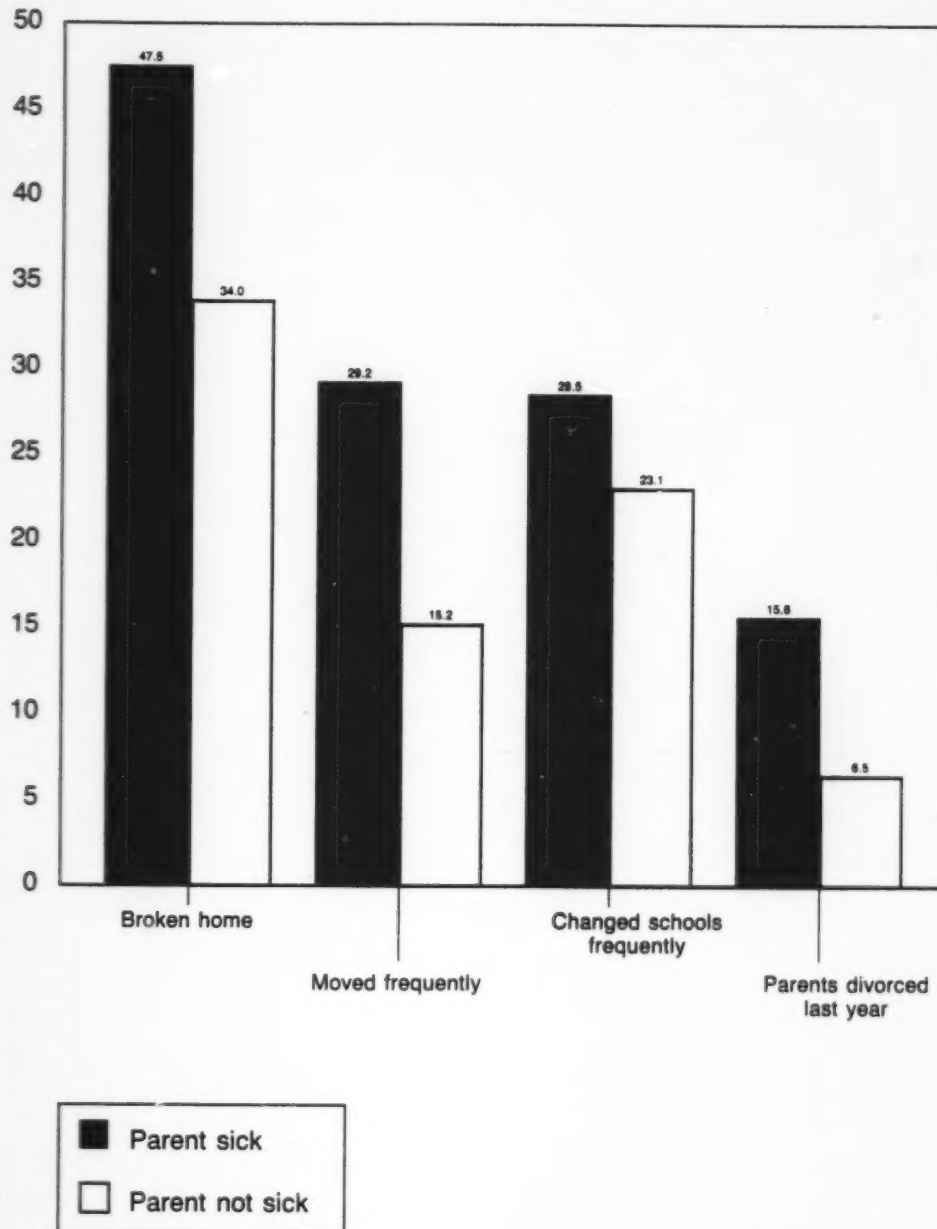


Chart 156

Parent died last year (N = 198) vs. parent did not die last year (N = 21,508)
Compared on family instability risk items (percent)

(Data from table 29)

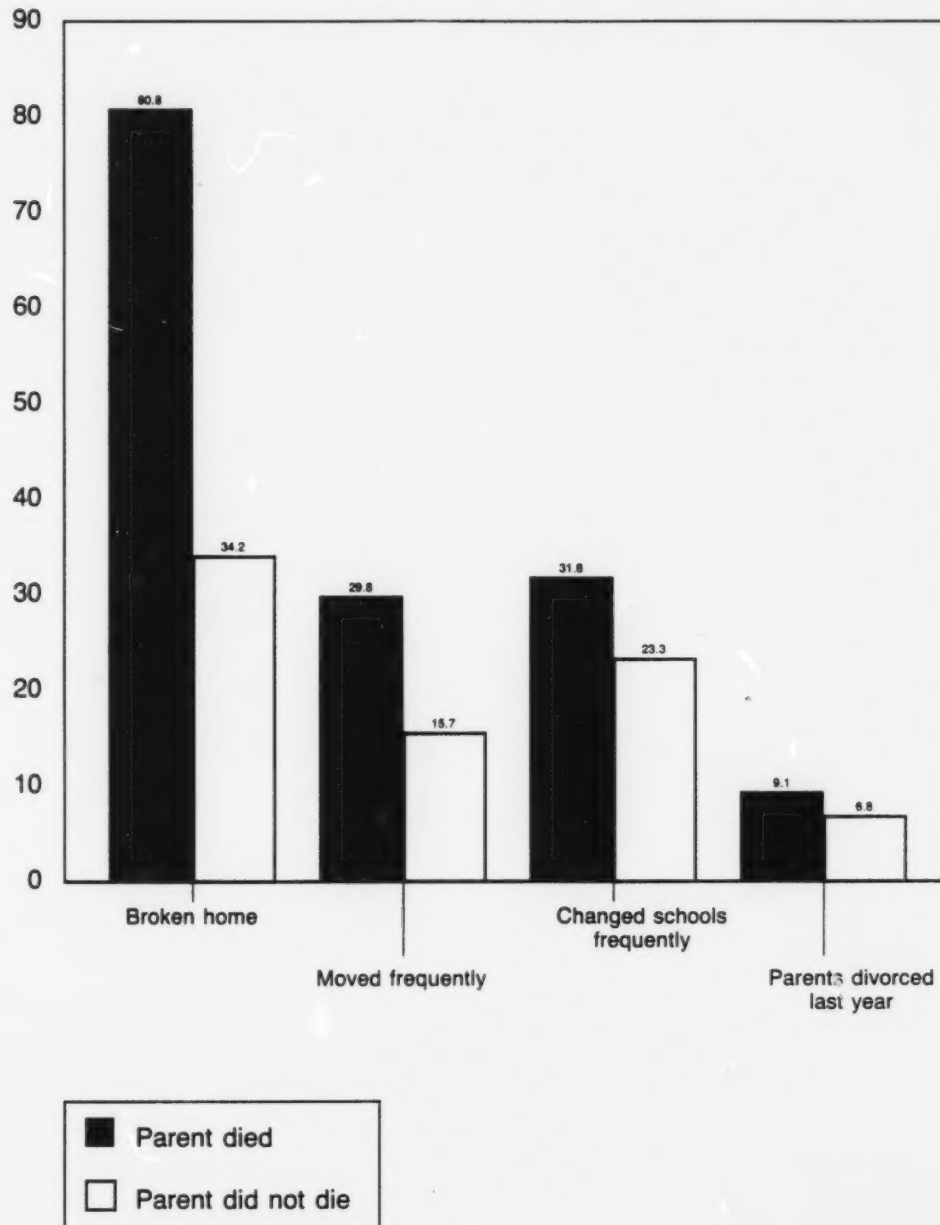


Chart 157

Parent lost job (N = 869) vs. parent did not lose job (N = 20,837)
Compared on family instability risk items (percent)

(Data from table 30)

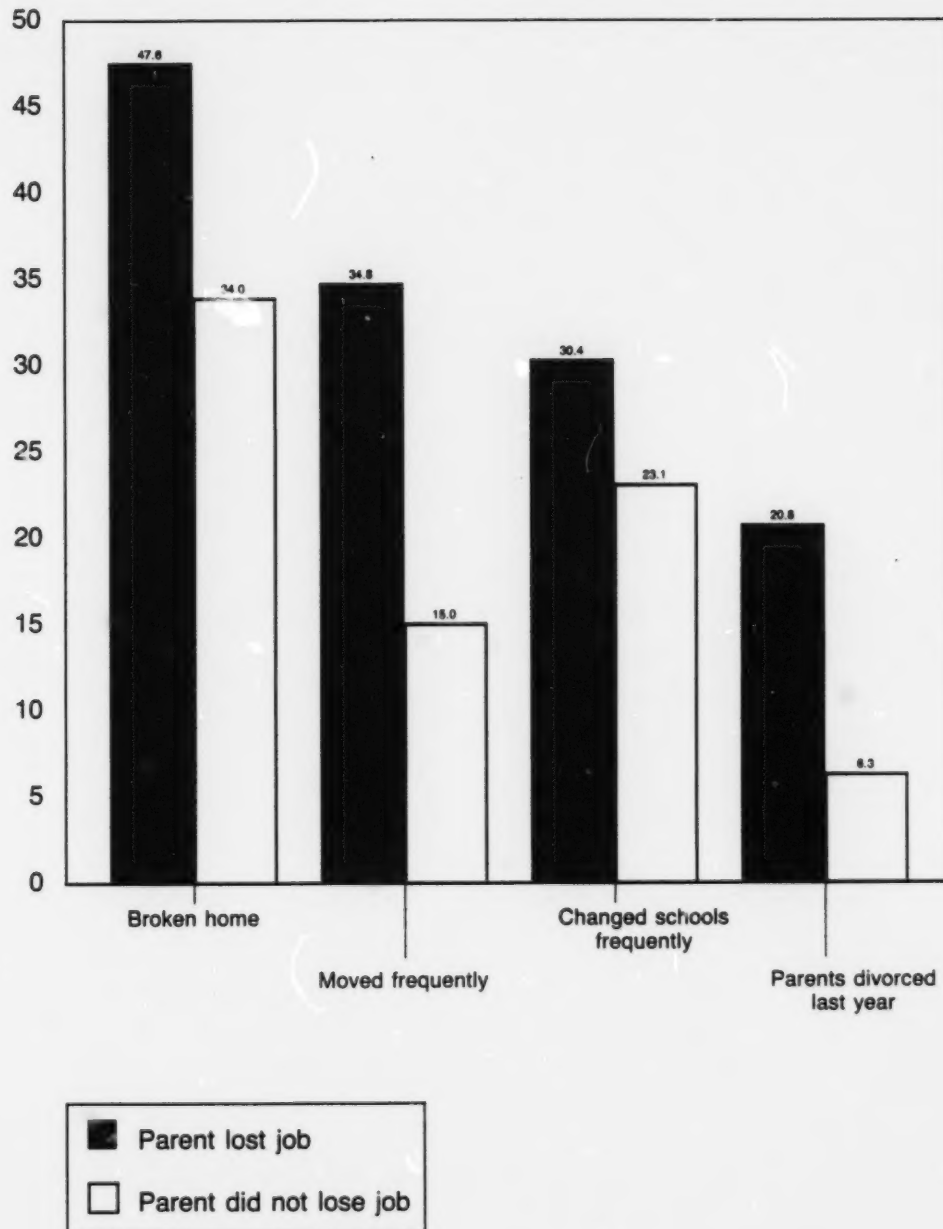


Chart 158

Friend died last year (N = 998) vs. friend did not die last year (N = 20,708)
Compared on family instability risk items (percent)

(Data from table 31)

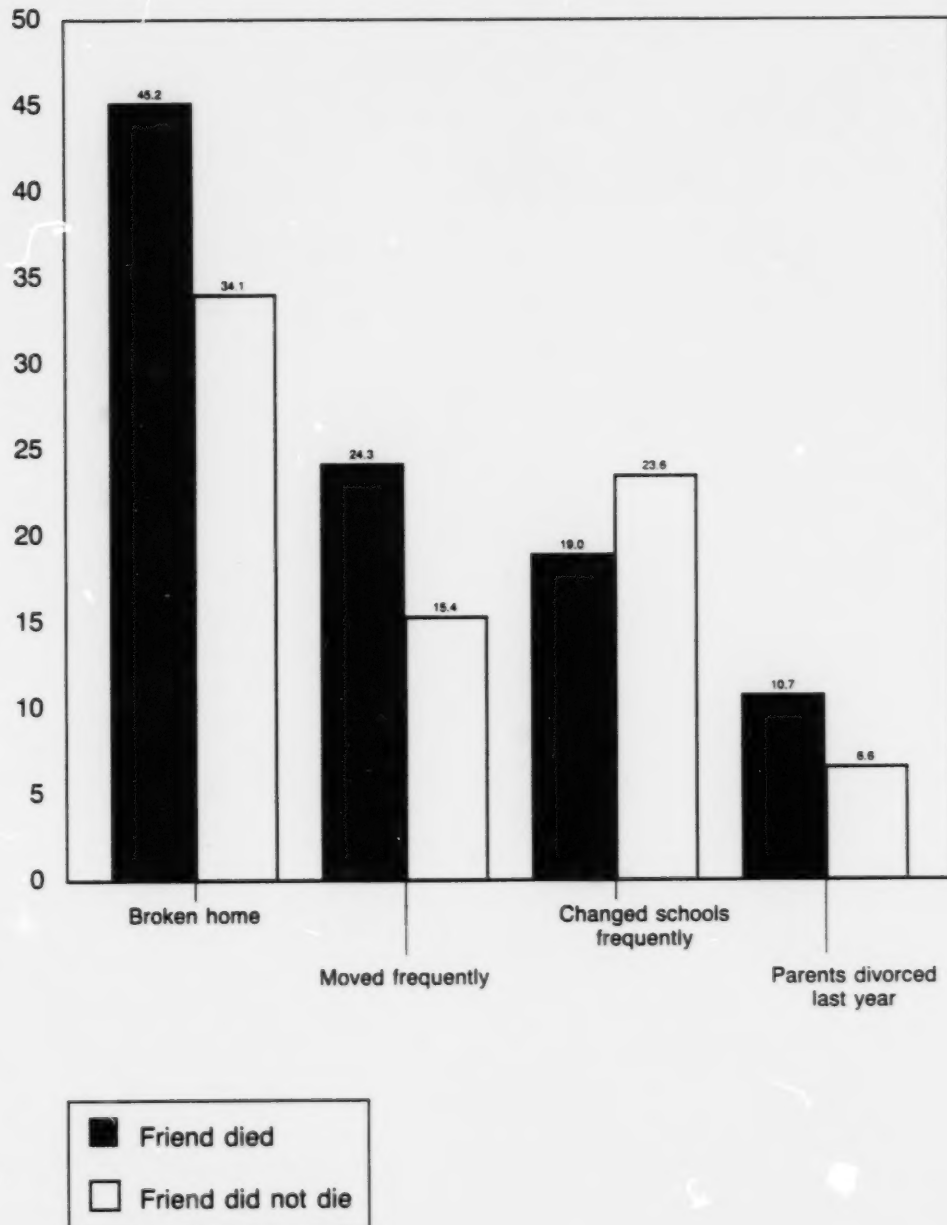


Chart 159

Student seriously ill in last year (N = 697) vs. student not ill (N = 21,009)
Compared on family instability risk items (percent)

(Data from table 32)

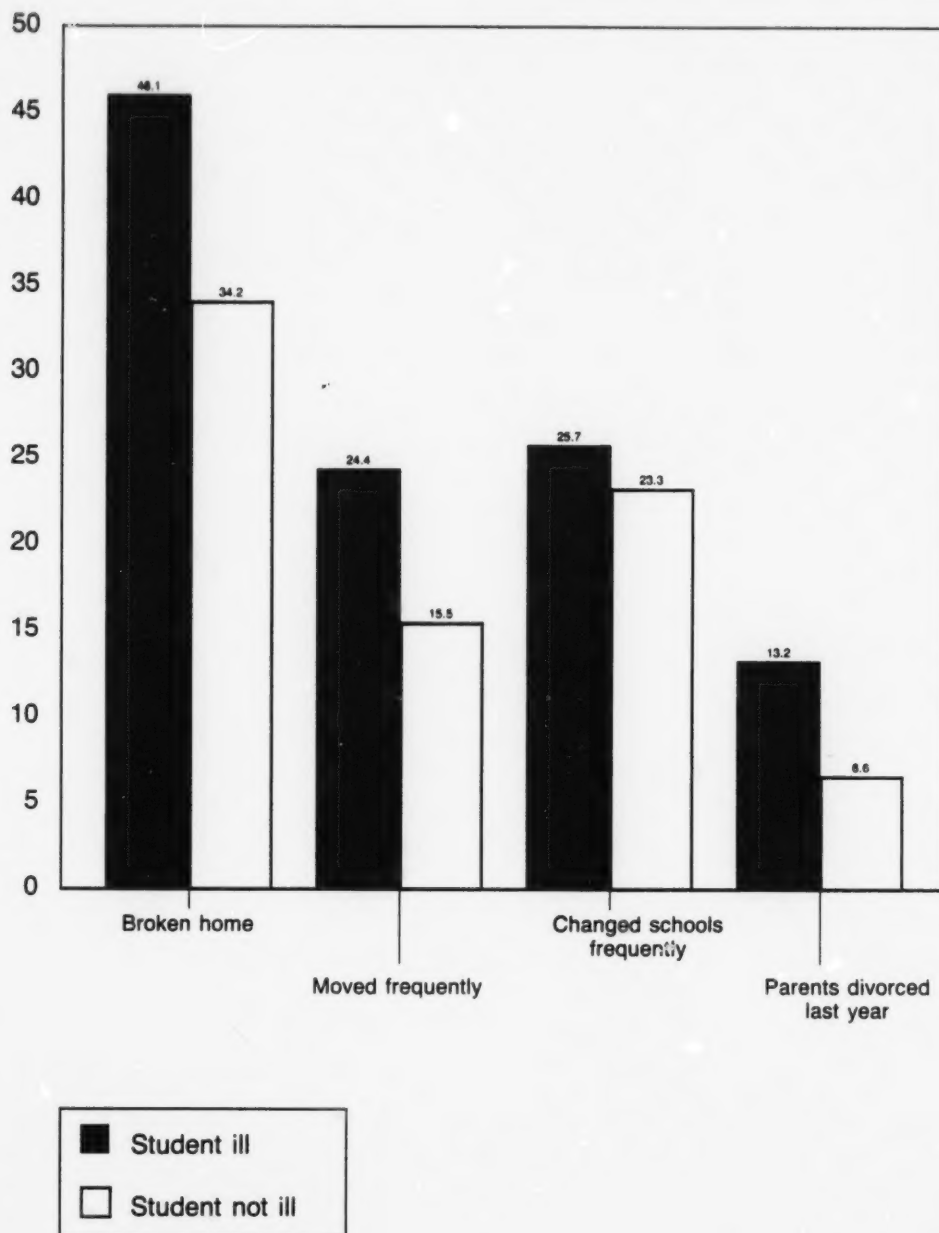


Chart 160

Sibling died in last year (N = 118) vs. sibling did not die (N = 21,588)
Compared on family instability risk items (percent)

(Data from table 33)

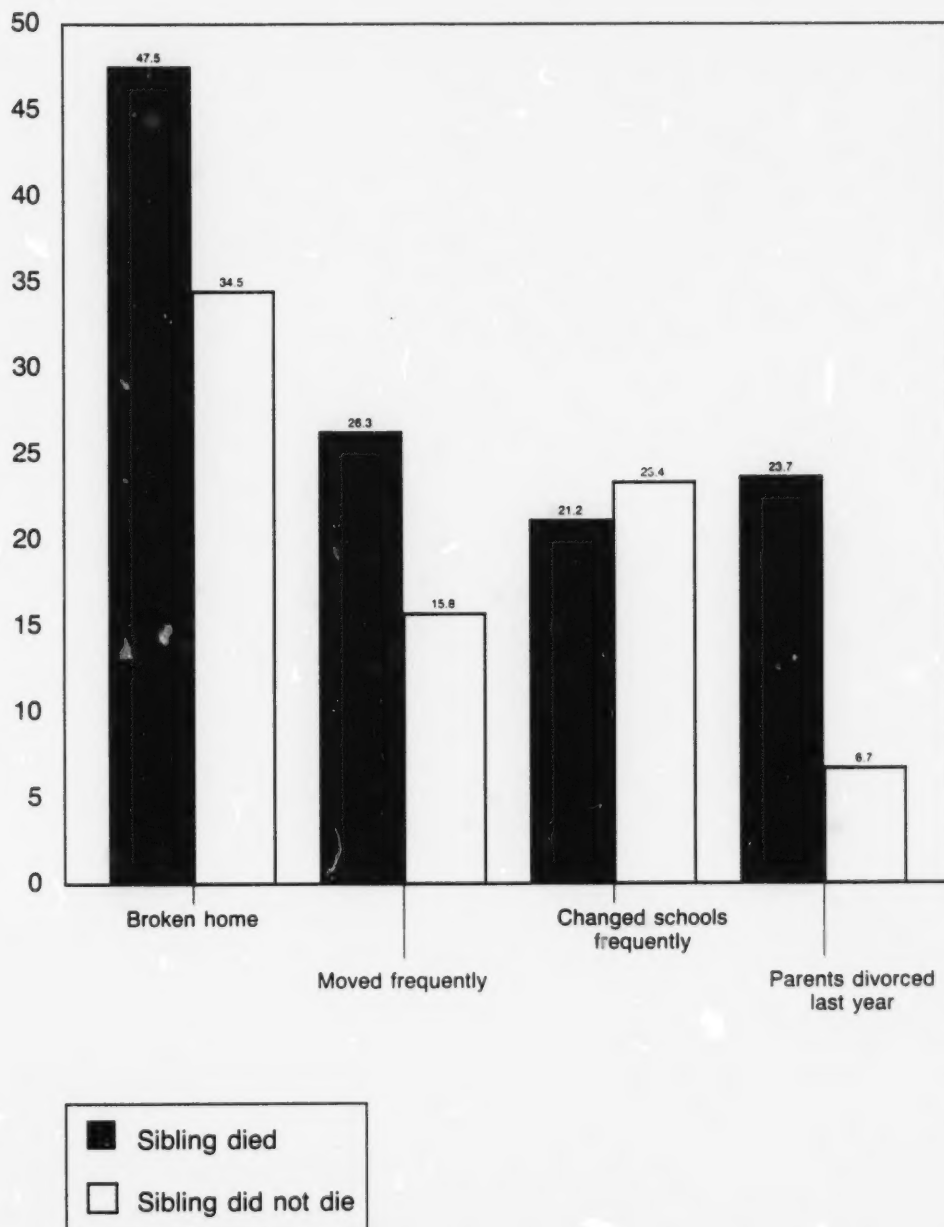


Chart 161

Father has low-level job (N = 3,659) vs. father does not have low-level job (N = 18,047)
Compared on family instability risk items (percent)

(Data from table 34)

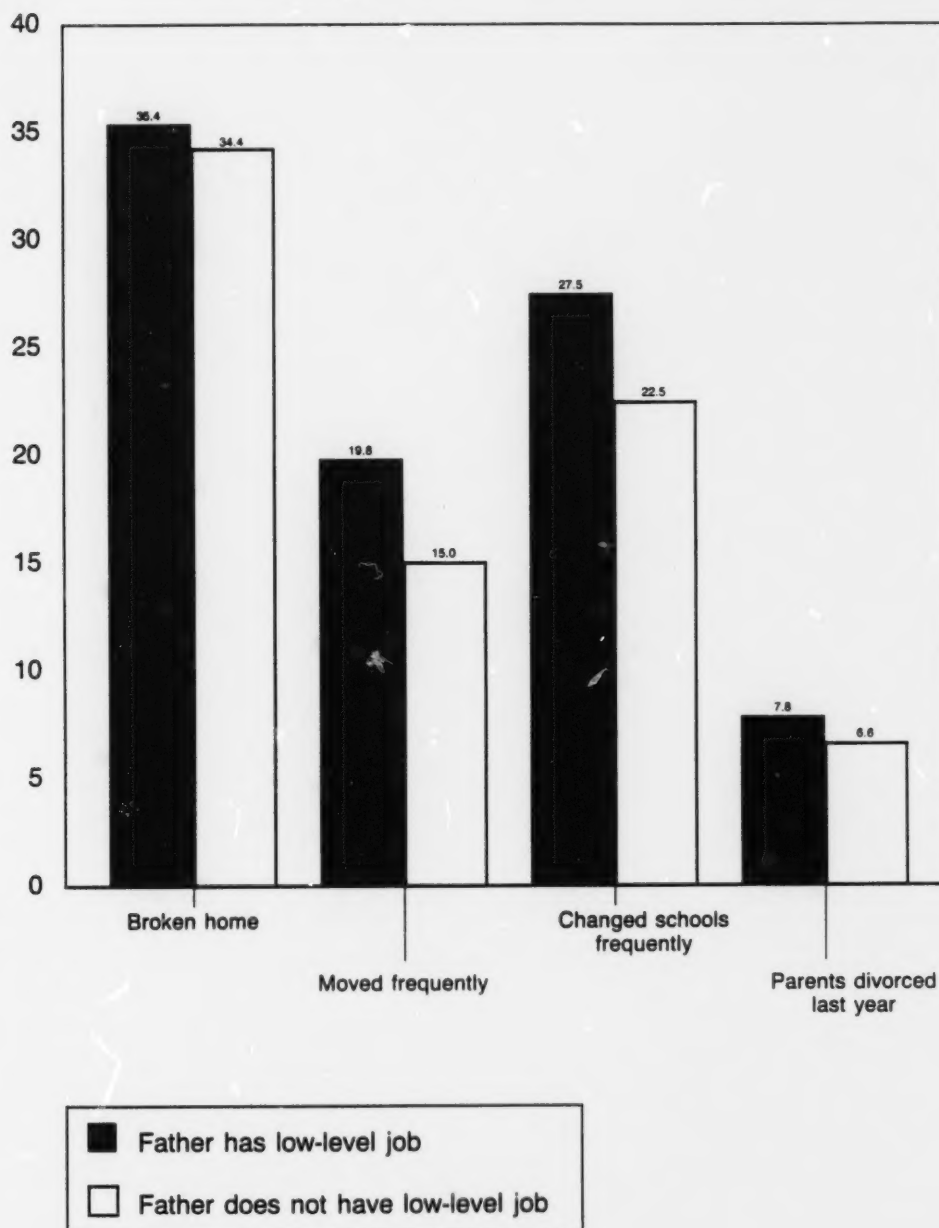


Chart 162

Father did not graduate (N = 1,680) vs. father did graduate (N = 20,026)
Compared on family instability risk items (percent)

(Data from table 35)

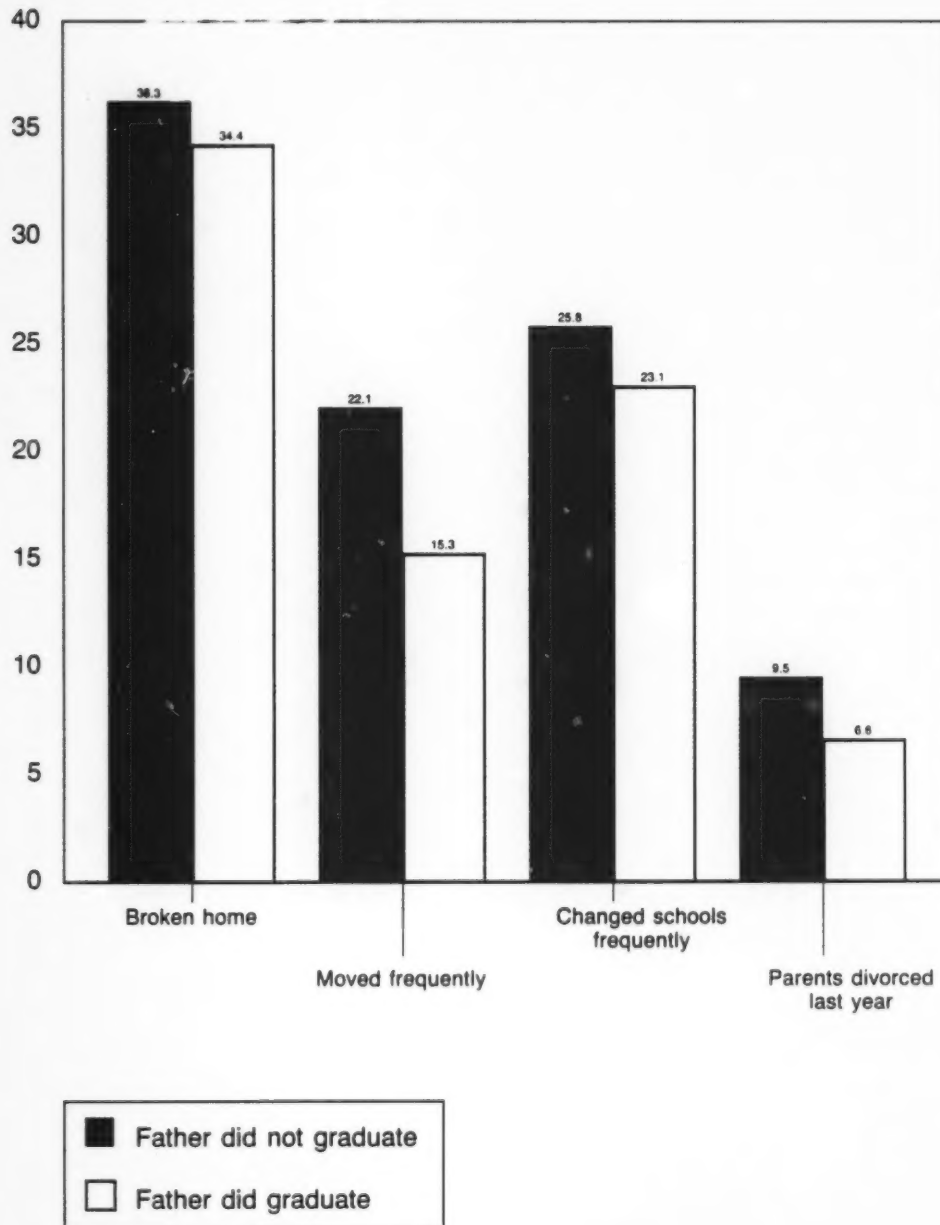


Chart 163

Mother has low-level job (N = 4,260) vs. mother does not have low-level job (N = 17,446)
Compared on family instability risk items (percent)

(Data from table 36)

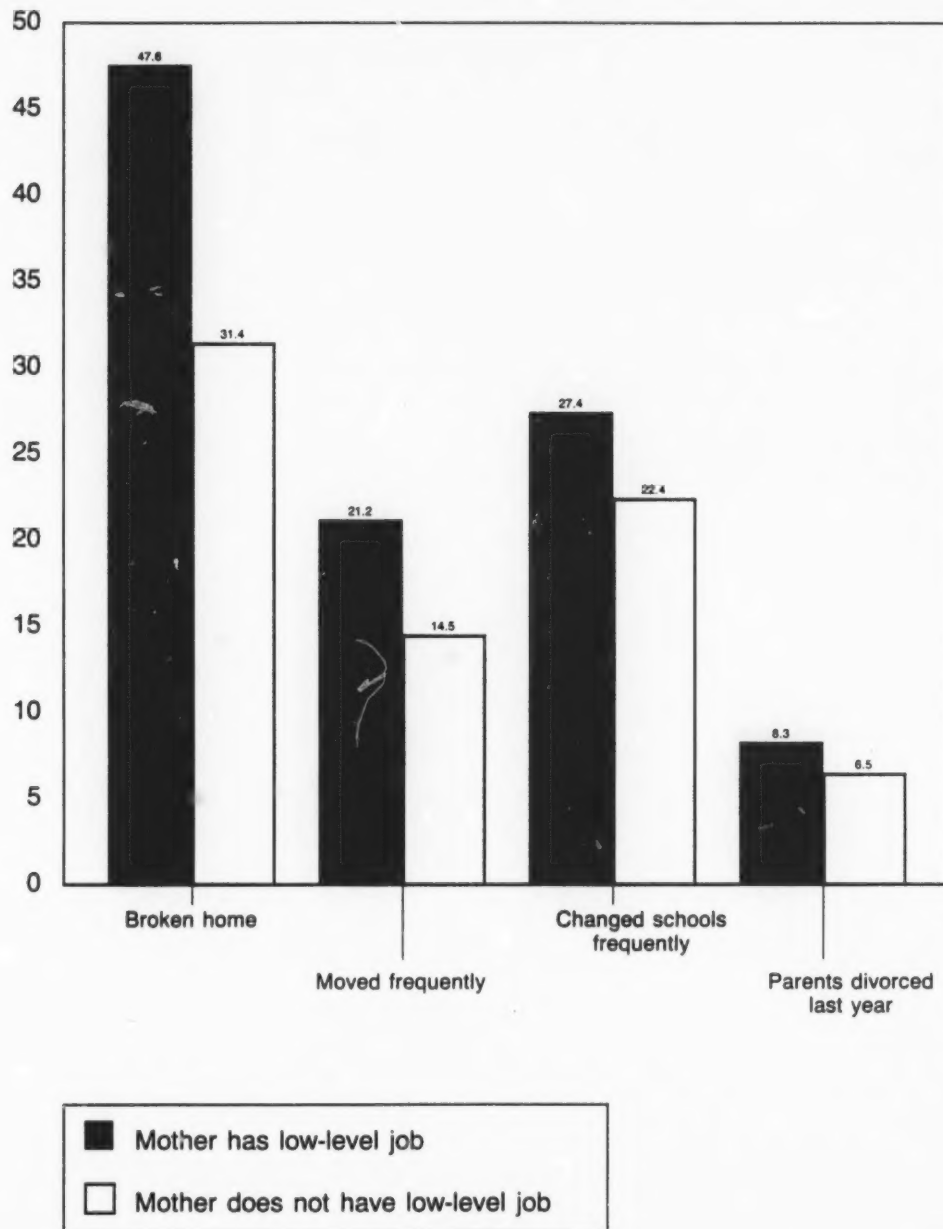


Chart 164

Mother did not graduate (N = 1,809) vs. mother did graduate (N = 19,897)
Compared on family instability risk items (percent)

(Data from table 37)

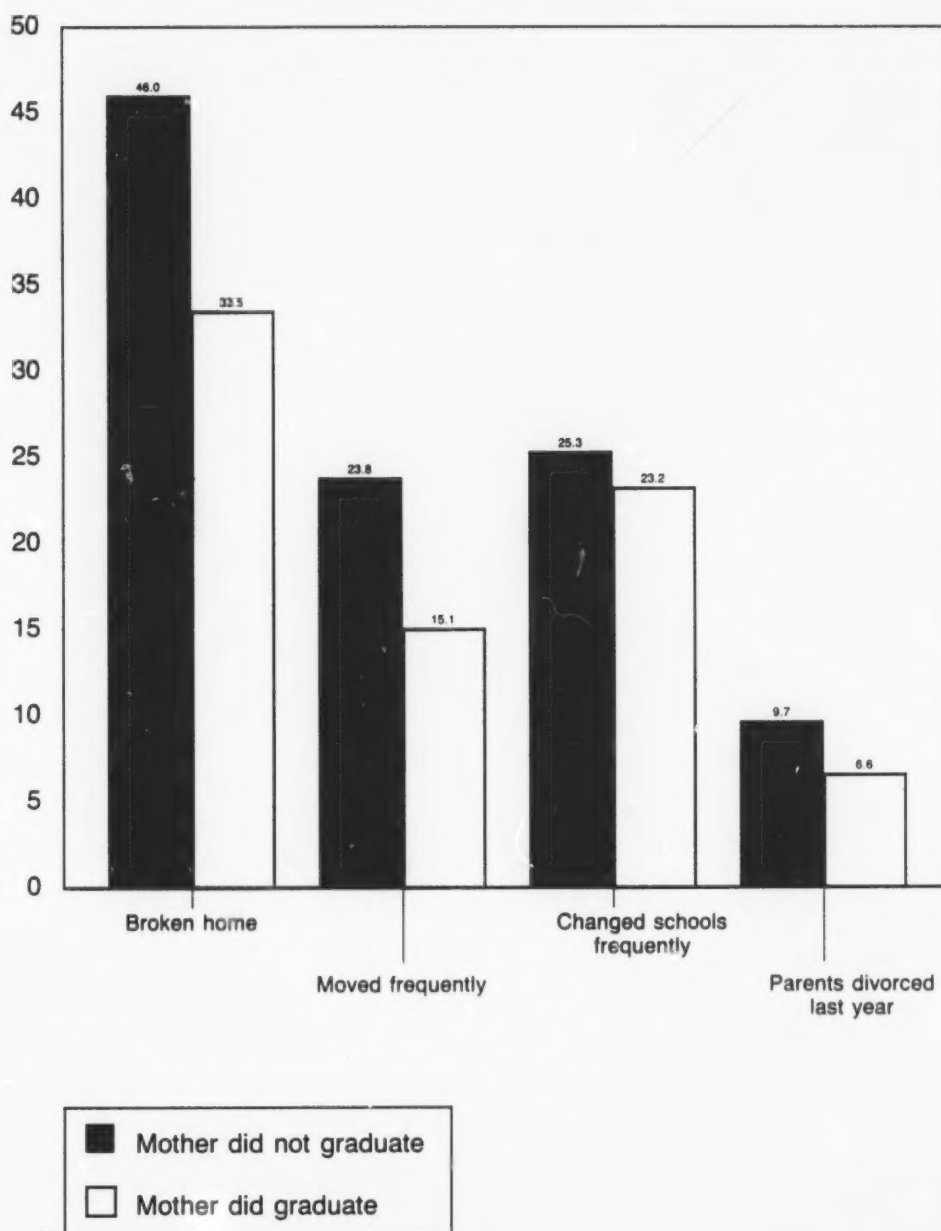


Chart 165

Parents' attitude negative (N = 1,089) vs. parents' attitude not negative (N = 20,617)
Compared on family instability risk items (percent)

(Data from table 38)

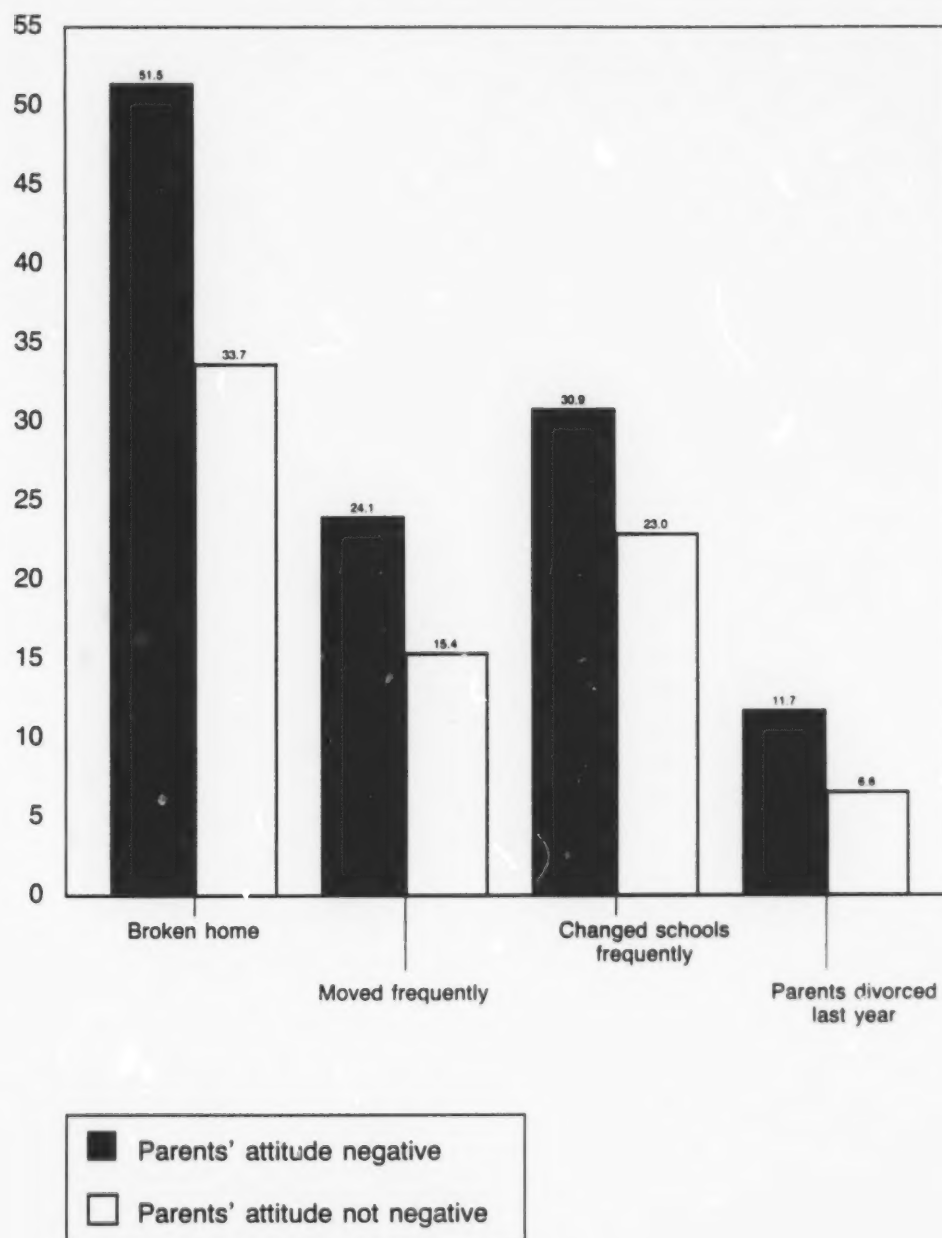


Chart 166

No English spoken (N = 1,067) vs. English spoken (N = 20,639)
Compared on family instability risk items (percent)

(Data from table 39)

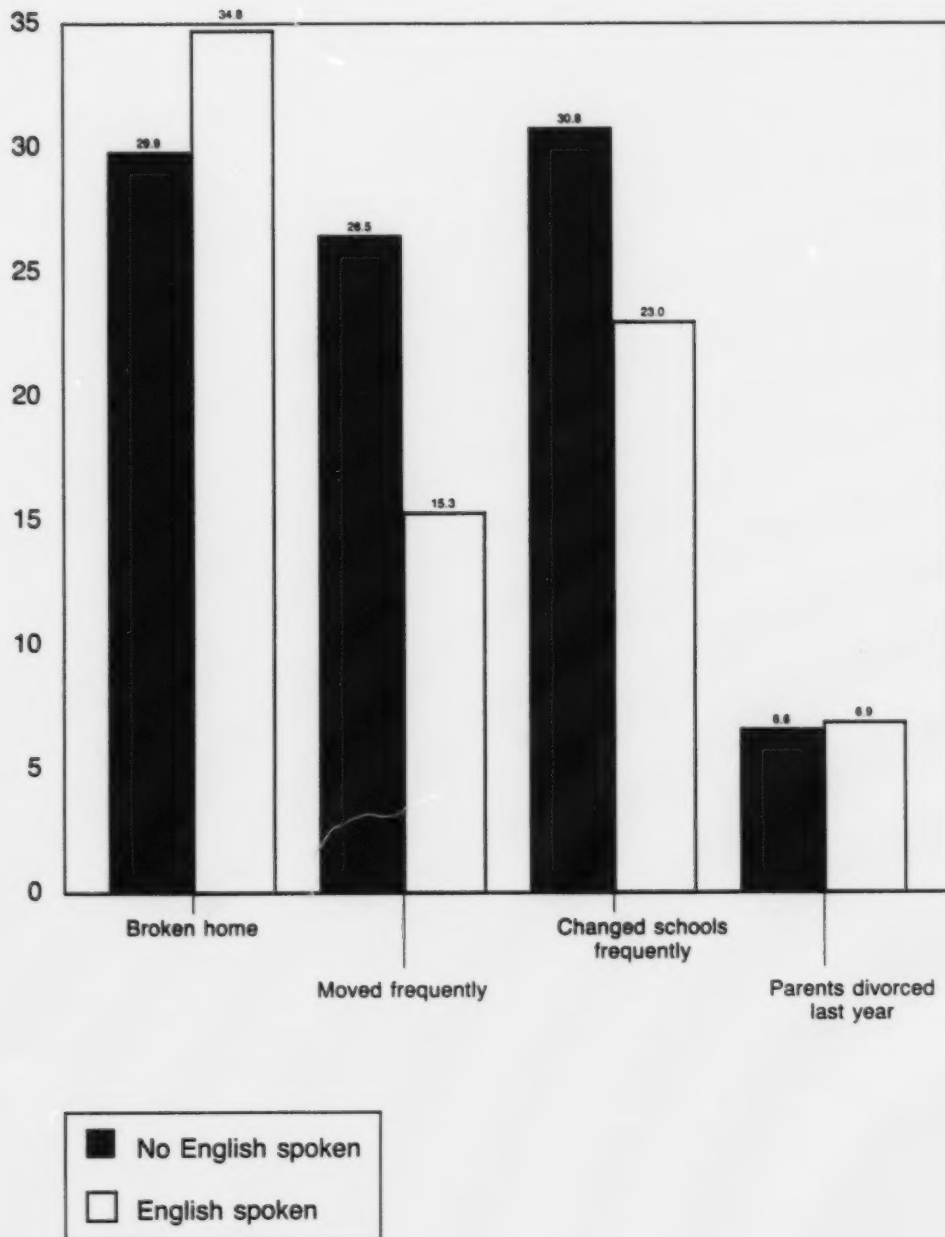


Chart 167

From broken home (N = 7,505) vs. real parents (N = 14,201)
Compared on family instability risk items (percent)

(Data from table 40)

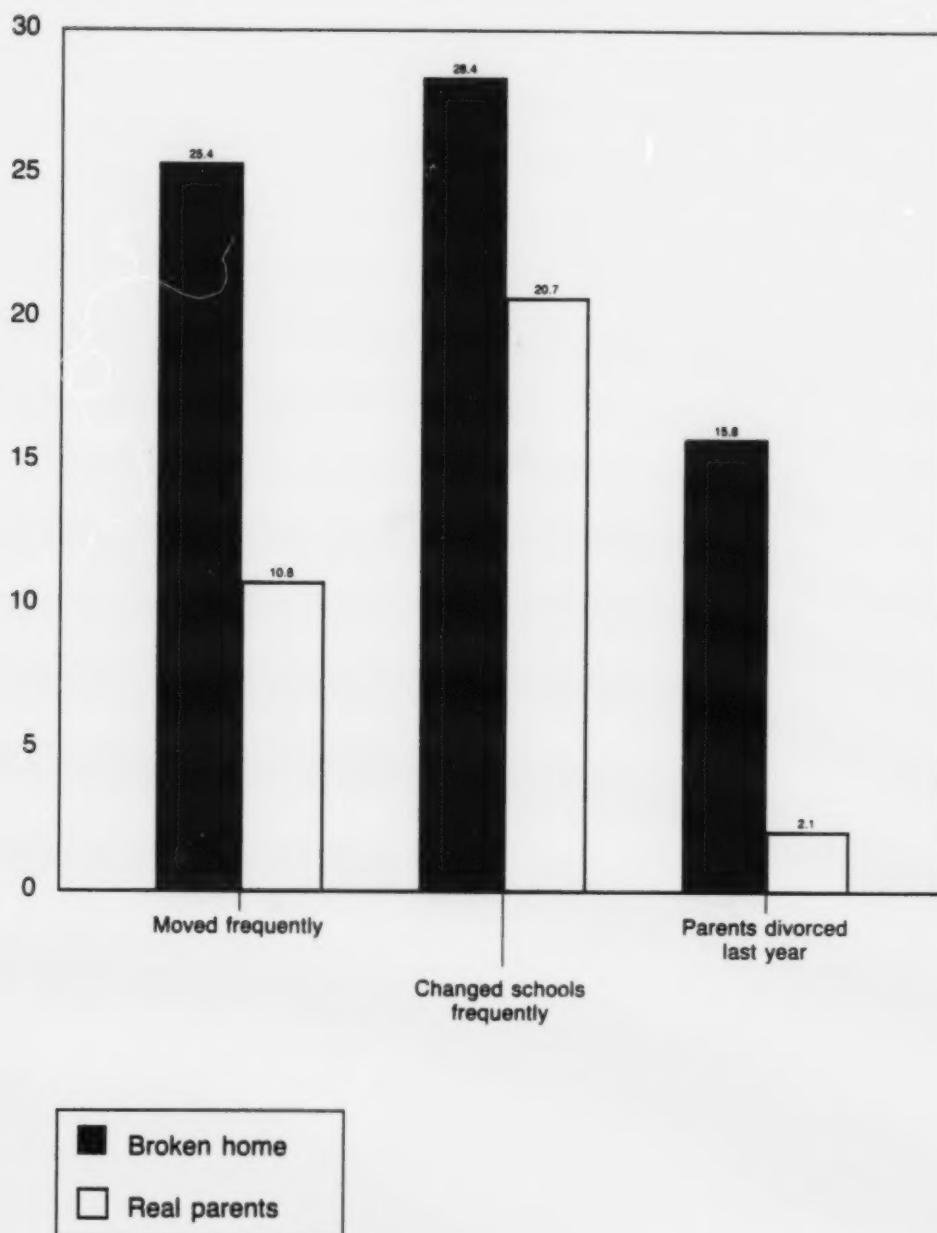


Chart 168

Moved frequently (N = 3,432) vs. did not move frequently (N = 18,274)
Compared on family instability risk items (percent)

(Data from table 41)

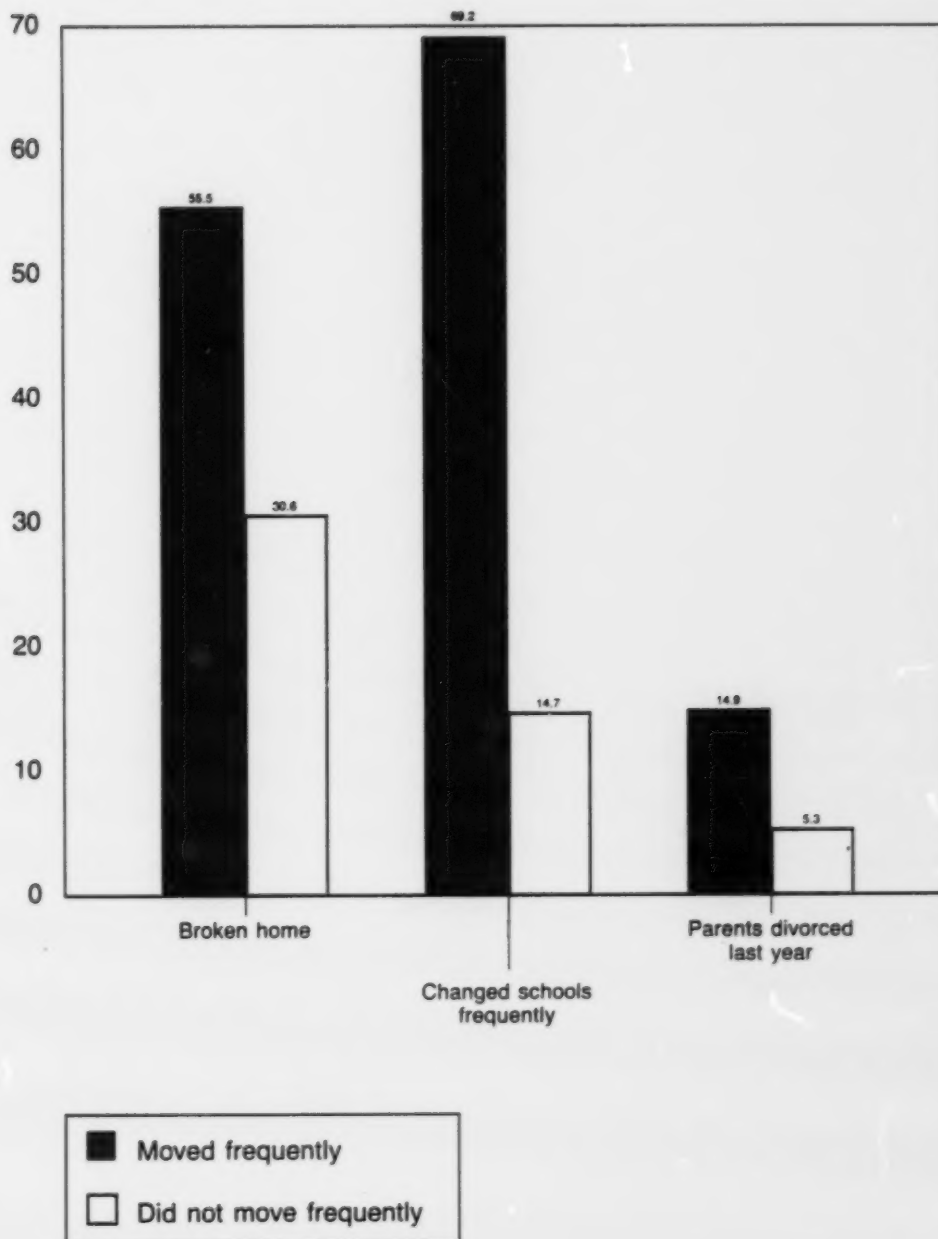


Chart 169

Changed schools frequently (N = 5,068) vs. did not change schools frequently (N = 16,638)
Compared on family instability risk items (percent)

(Data from table 42)

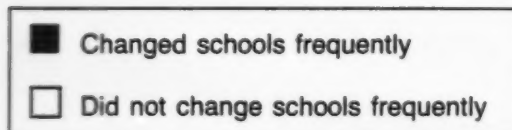
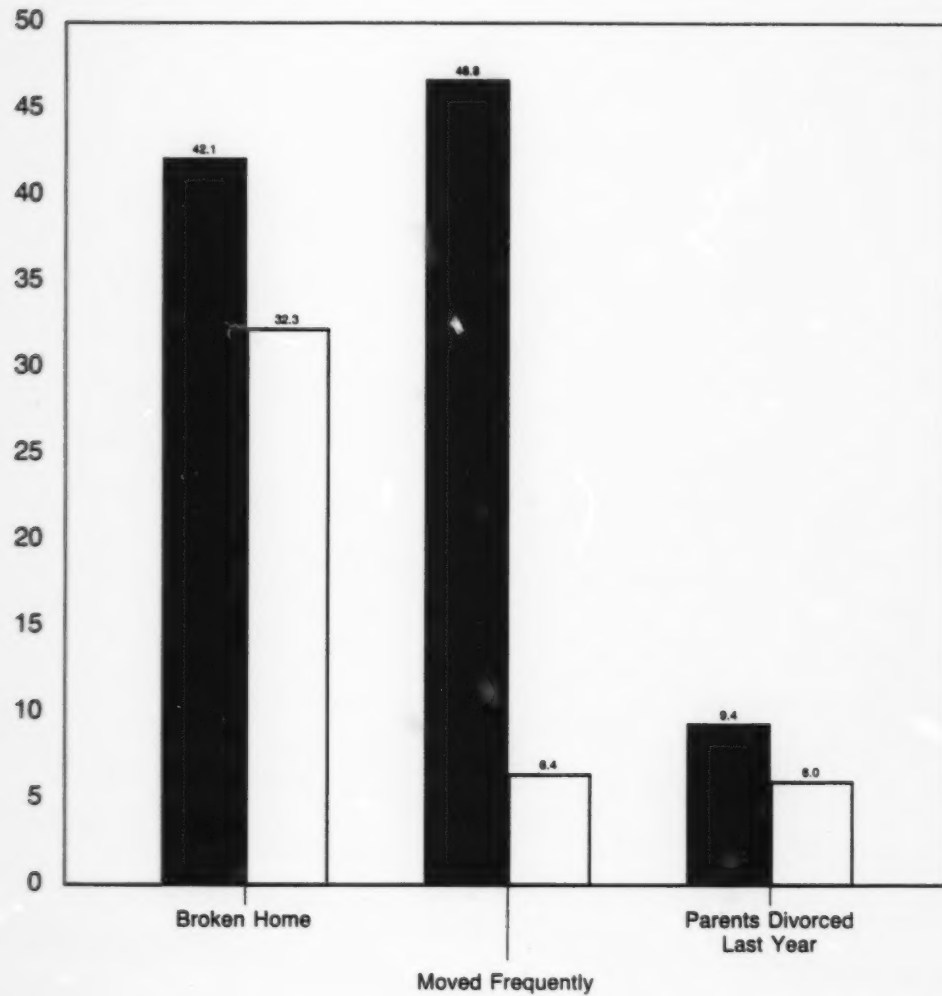
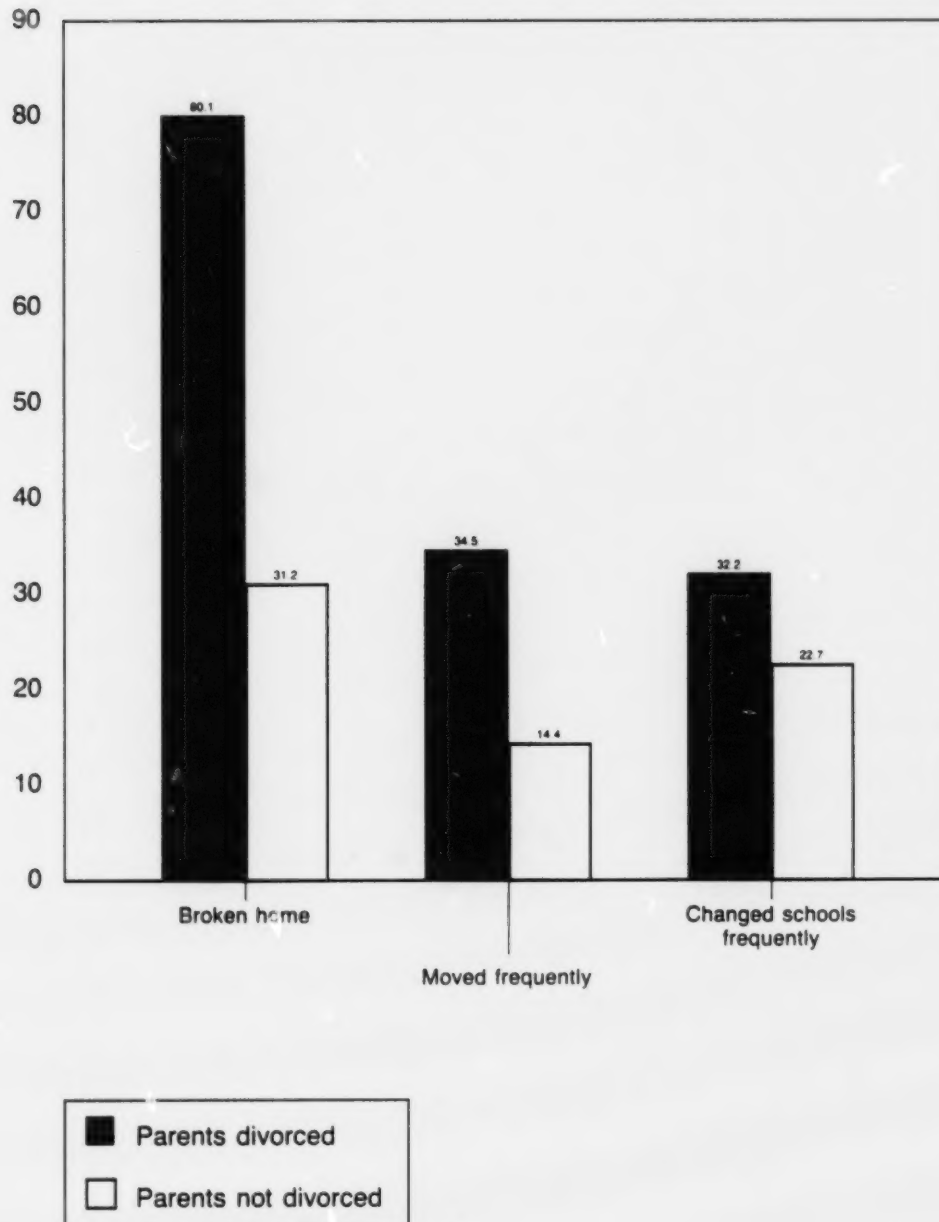


Chart 170

Parents divorced in last year (N = 1,484) vs. parents did not divorce in last year (N = 20,222)
Compared on family instability risk items (percent)

(Data from table 43)



APPENDIX H
HOW FOLLOW-UP INFORMATION WAS COLLECTED

Job 8: Collect Information About Students

One of the most important jobs in the study will be to collect information from teachers in *one* school regarding the students about whom you collected information two years ago. This information will be used to verify our original estimate of who was at risk. Using the information you collected two years ago, we predicted certain things about some students who were thought then to be at risk. With the information you collect now, we will be able to verify the accuracy of that prediction. Our hope is to produce a valid instrument for determining risk status, and we can only do that by *following the same students over a period of time.*

To collect this information, you must accomplish six tasks:

1. identify the students who were studied before
2. meet with professionals who know the students best
3. relate students' names with original ID numbers
4. review the information available about each student
5. record information on "answer blanks"
6. ask principal to keep student names and ID numbers

Each of these six tasks is described below.

Task 1: Specify the Students to Be Studied. You will collect data on the same students you studied before, but only in one school, and it must be the school that the coordinating committee specifies. Further, *you must collect data on exactly the same students.* Those who were fourth-graders in 1988 should be in grade six this year; those who were seventh-graders should be in grade nine; and those who were 10th-graders should be in grade 12. Most of the students will probably still be in the same building, except in those districts in which seventh-graders move into a four-year high school with grades nine through 12.

When you return materials in January, there should be one answer blank for every student at this school for whom you returned an answer blank in 1988. In those instances in which certain students are no longer at the school (for example, their family moved, the student died, or the student dropped out of school), you are still asked to provide an information about students answer blank for each student with the first few questions answered.

In those cases in which seventh-graders went to the ninth grade at a separate high school, try to get information from the teachers and others in that high school, with the cooperation of the principal at the middle school or junior high school in identifying students.

Our concern is to get information on the same students about whom you collected information in 1988. Confer with the principal about these matters, since that person was asked in 1988 to keep the sheet that specified which students were assigned which ID number.

Arrange with the principal, also, to meet with the people who are directly responsible for working with each of the students this year. Those people must have access to information that the school has available about each student.

Task 2: Meet With the Teachers and Other Professionals Who Now Know the Students Best. Schedule a meeting with the teachers and others who are most knowledgeable now about the students involved. At the elementary level, that probably means meeting with the classroom teachers who have those students this year (and perhaps a guidance counselor). At the junior high or senior high school level, meeting with teachers and other professionals who know the students best probably means meeting with English teachers or homeroom teachers and the guidance counselors. At any rate, find those teachers and other professionals who now work most closely with the students about whom you collected data in 1988.

The people you meet with must have access to each student's cumulative folder, and they must have access to such things as attendance data, achievement data, family situation, and the like. The Phi Delta Kappa research team will *not* need to have direct access to that information, but the teachers and others in the building must be able to provide information to your research team that is accurate and current for this school year.

Task 3: Note Students' Names and Assign the Same ID Numbers. In 1988 the principal was asked to keep a list of students' names, along with the ID numbers assigned to those students at that time. Ask the principal to find that sheet.

Complete one information about students answer blank for each student listed on the principal's 1988 list, *even if a student has moved away or is no longer enrolled in that school*. Be sure to use *exactly the same ID number* that each student was assigned before; we must be able to relate the new data to the old data accurately. Also, be sure that the PDK chapter number is recorded on the answer sheet. Without those two numbers, we cannot match the data collected about students in 1988 with the data collected this year. We must make that match exactly for this follow-up to have validity.

Remember, *assign each student the same ID number the student was assigned last time*.

Task 4: Review the Information Available About Each Student. One or two members of the Phi Delta Kappa research team and one or two teachers or other professionals in the building should meet together and review information available about each student. Schedule enough time to review information about all of the students at one sitting, if possible.

In preparing the teachers and others for this project, describe the process by which data about each student will be collected and how those data will be recorded. Briefly, the process will be as follows:

- a. students will be identified by name and ID number
- b. data will be recorded on an answer blank
- c. the school will keep the names and ID numbers
- d. Phi Delta Kappa will keep the answer blanks

Ask the principal to provide the student ID number sheet that lists students' names and ID numbers; that sheet was prepared in 1988. Each student was listed by name and assigned an ID number when data were collected in autumn 1988. Various kinds of information, (including the original ID number, but not the name) will be recorded on a new information about students answer blank — one for each student who was studied in 1988.

The school should continue to keep the "Student ID Number" sheets on which students are listed by name and ID number, and Phi Delta Kappa will keep the information about students answer blanks on which students are identified only by ID number. If additional information is needed about a particular student at some point again in the future, it will be possible to go back to the school once more and have the principal identify the student, as is being done this year.

Task 5: Record Information on Answer Blank. Review all of the information available to the teachers and others who are meeting with you. *Fill out one information about students answer blank for each student*, according to the instructions outlined in instructions for recording information about each student, which is appended to this document.

There are 30 areas for which information is requested about each of the students you collected information on last time. Some of the questions are the same as before, but you are asked to provide updated information. Some of the questions are different. Most of the information will be easy to specify (gender and ethnicity, for example), so the activity will proceed quickly. Certain requests will require you to search the students' records carefully (reading test scores, number of absences last year, and so forth).

The teachers and others who know the student best should check the records and provide information. The PDK research team should process the discussion, ask helpful questions, and *record the information provided on the answer blank, according to the instructions*. Fill out one answer blank for each student for whom you collected information in 1988, even if the student moved away or is no longer at the school. Do not fill out an answer blank for students who may have moved into the district or are new in the school since the data were collected last time. Our only interest is in information about the same students you studied originally. Note: *If the information is not available* — in the student's folder, in the school's records, or in the teacher's experience — *leave that space unmarked on the answer blank*.

Fill out one information about students answer blank for each student included in the study last time. Be certain you have each student's originally assigned ID number recorded in the appropriate space in the new answer blank. Record all of the information on the answer blank according to the instructions. Some items are No or Yes and are recorded as 0 or 1, and those will be easy to remember, but instructions about other items must be reviewed constantly.

Practice this data-recording procedure beforehand to familiarize yourself with the concepts and to avoid making errors when you actually record the information. Every item on the answer blank has been identified by a word or phrase to help you, but recording the data accurately is the heart of this study, so *do it carefully*. We cannot do an excellent study with poor data.

Remember, *if you have no information, leave that space unmarked*.

Task 6: Ask Principal to Continue to Keep the Student ID Number Sheets. After you have finished filling out one information about students answer blank for each of the students studied in 1988, give the student ID number sheets back to the principal. Ask that person to continue to keep those papers in his or her files.

By asking the principal to keep the student ID number sheets in the school, you demonstrate that you are *not* taking information out of the school that would enable anyone to learn anything about a particular student. Students cannot be identified without access to the student ID number sheets maintained in the school. Anonymity will be assured.

Tell the principal you will return to the school after the data have been analyzed, and you will share with him or her whatever you learn about the students and about the school from the data collected. Thank the principal and teachers.

Instructions for Recording Information About Students

Directions for recording information about each student on the information about students answer blank are spelled out in detail in the following pages. *Follow these directions exactly*. Each item is listed separately, and instructions about what to record on each numbered space of the answer blank are described in these instructions.

Be sure to *put your chapter number on the answer blank* in the appropriate space so we will know exactly where the data come from, and *be sure to use the same ID number for each student that you used last time*. Everything in this follow-up study depends on that point.

Fill in the appropriate space or circle the information on the answer blank, according to the directions listed below. If the teachers who work with a student most closely do not know about a particular item, or if there is no information available, leave that item blank.

- | <i>Item Number</i> | <i>Factor</i> |
|--------------------|---|
| 1. | <p><i>Birth date</i></p> <p>Record the month and the year in which student was born</p> |
| 2. | <p><i>Chapter ID</i></p> <p>Record the four-digit number of the Phi Delta Kappa chapter doing the study. For example, chapter number 0129 would be recorded as 0129</p> |
| 3. | <p><i>Student ID number</i></p> <p>Record student's ID number as assigned on student ID number sheet prepared two years ago. Do <i>not</i> assign new ID numbers</p> |
| 4. | <p><i>Ethnic group</i></p> <p>1 = White</p> <p>2 = Black</p> <p>3 = Hispanic</p> <p>4 = Native American</p> <p>5 = Asian</p> |
| 5. | <p><i>Sex</i></p> <p>0 = Male</p> <p>1 = Female</p> |
| 6. | <p><i>Is the student currently enrolled in this school?</i></p> <p>0 = No</p> <p>1 = Yes</p> <p>If the answer to this question is No, please answer questions 7 through 12.</p> <p>If the answer to this question is Yes, proceed directly to question 13.</p> |
| 7. | <p><i>Did this student transfer to another school during the past two years because the family moved?</i></p> <p>0 = No</p> <p>1 = Yes</p> |
| 8. | <p><i>Was this student assigned by the district to another school during the past two years?</i></p> <p>0 = No</p> <p>1 = Yes</p> <p>NOTE: As used here, "assigned" does <i>not</i> refer to normal moves from junior high to senior high school, for example, but refers instead to assignment to meet racial quotas for court-ordered desegregation plans or to special education classes, for example.</p> |
| 9. | <p><i>Was this student placed in an institution such as a jail or detention center by a judge or other official during the past two years?</i></p> <p>0 = No</p> <p>1 = Yes</p> |

10. *Did this student die during the past two years?*
0 = No
1 = Yes
11. *If the student died during the past two years, indicate the cause of death, as follows:*
1 = Automobile accident
2 = Drowning
3 = Other accident
4 = Illness
5 = Drug overdose
6 = Suicide
7 = Homicide
8 = Cause of death unknown
12. *Did the student drop out of school during the past two years?*
0 = No
1 = Yes
13. *Grade or educational level student now in*
5 = Fifth grade
6 = Sixth grade
7 = Seventh grade
8 = Eighth grade
9 = Ninth grade
10 = 10th grade
11 = 11th grade
12 = 12th grade
13 = Graduated
14. *Student's latest scores on norm-referenced standardized achievement tests in reading*
1 = Below 20th percentile
2 = Between 21st and 40th percentile
3 = Between 41st and 60th percentile
4 = Between 61st and 80th percentile
5 = Over 80th percentile
15. *Number of courses failed last school year (1989-90)*
0 = None
1 = One
2 = Two
3 = Three
4 = Four
16. *Number of times this student has been retained in grade (held back) since you collected data two years ago*
0 = None
1 = One
2 = Two

17. Number of days student was *absent* during the 1989-90 school year
1 = 10 or less
2 = 11 to 20
3 = 21 to 30
4 = 31 to 40
5 = 41 or more
18. Number of times student was *suspended* during 1989-90 school year (in-school or out-of-school suspension)
0 = None
1 = One
2 = Two
3 = Three
4 = Four or more
19. Was the student *expelled* during 1988-90 school years?
0 = No
1 = Yes
20. Average grades student received last year
0 = F
1 = D
2 = C
3 = B
4 = A
21. Did the student experience a *serious illness or accident* during the past year?
0 = No
1 = Yes
22. Did the student attempt *suicide* during the past year?
0 = No
1 = Yes
23. Did a *pregnancy occur* during the past year?
0 = No
1 = Yes
24. Is there evidence that the student has been *using drugs* or engaged in substance abuse of any kind during the past year?
0 = No
1 = Yes
25. Is there evidence that the student has been *selling or pushing drugs* of any kind during the past year?
0 = No
1 = Yes
26. Is there evidence that the student has been *drinking alcohol* during the past year?
0 = No
1 = Yes

27. Is there evidence that the student was *arrested or convicted* for any illegal activity during the past year?
0 = No
1 = Yes
28. Is there evidence that the student was *abused*, sexually or physically, during the past year?
0 = No
1 = Yes
29. *How many hours does the student work at a job each week for pay?* (If "none," enter "0" in the space.)
(hours per week)
30. What was student's *weight at birth*?
(pounds and ounces)

APPENDIX I
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APPENDIX J

REGRESSION ANALYSIS

Table 63

Multiple regression analysis with effort dependent variable

Grade Level	df	Variables in Equation	Beta	t
4	4 5992	Family tragedy	.0212	1.72
		Academic failure	.4144	33.98
		Family SES	.0480	3.95
		Personal pain	.0306	2.45
Multiple R = .44		R Squared = .19	F = 360.02 **	
7	5 7615	Family instability	.0259	2.44
		Family SES	.0187	1.72
		Family tragedy	.0268	2.52
		Personal pain	.0230	2.07
		Academic failure	.4123	36.49
Multiple R = .44		R Squared = .19	F = 358.63 **	
10	4 7336	Family SES	.0597	5.38
		Family tragedy	.0760	6.68
		Academic failure	.3268	28.65
		Personal pain	.0734	6.26
Multiple R = .39		R Squared = .15	F = 333.78 **	

** Significant beyond .001 level

Table 64

Multiple regression analysis with failure dependent variable

Grade Level	df	Variables in Equation	Beta	t
4	3 5993	Family instability	.0973	7.85
		Family SES	.2387	19.21
		Personal pain	.1391	11.19
		Multiple R = .32	R Squared = .10	F = 233.91 **
7	4 7615	Family instability	.1053	9.84
		Family SES	.2127	19.75
		Family tragedy	.0477	4.44
		Personal pain	.2535	23.24
		Multiple R = .32	R Squared = .17	F = 383.17 **
10	4 7336	Family instability	.1294	11.58
		Family SES	.1748	15.78
		Family tragedy	.0295	-2.55
		Personal pain	.2412	20.55
		Multiple R = .36	R Squared = .13	F = 273.05 **

** Significant beyond .001 level

Table 65

Multiple regression analysis with pain dependent variable

Grade Level	df	Variables in Equation	Beta	t
4	3	Family instability	.0812	6.63
	5993	Family tragedy	.3030	24.71
		Family SES	.0975	7.94
	Multiple R = .35 R Squared = .12 F = 281.11 **			
7	3	Family instability	.1124	10.07
	7617	Family SES	.1740	15.62
		Family tragedy	.1479	13.25
	Multiple R = .28 R Squared = .08 F = 223.44 **			
10	3	Family instability	.1335	12.13
	7337	Family SES	.1114	10.18
		Family tragedy	.2950	26.85
	Multiple R = .37 R Squared = .14 F = 392.79 **			

** Significant beyond .001 level

APPENDIX K
COMPARISON SCHOOL EFFORT

Table 66

Comparison of mean school effort scores of
students who were suspended vs. were not suspended
(by grade level)

Evidence of Risk	Grade Level	N	Mean	SD	t
At risk	4	94	5.90	3.91	5.86 ***
Not at risk	4	5903	3.86	3.35	
At risk	7	392	5.21	3.66	13.76 ***
Not at risk	7	7229	2.96	3.13	
At risk	10	755	4.36	3.62	14.34 ***
Not at risk	10	6586	2.65	3.03	

*** Significant beyond .001 level

Table 67

Comparison of mean school effort scores of
students who attempted suicide vs. students who did not attempt suicide
(by grade level)

Evidence of Risk	Grade Level	N	Mean	SD	t
At risk	4	10	6.20	3.01	2.17 *
Not at risk	4	5987	3.89	3.37	
At risk	7	34	4.03	3.18	1.75
Not at risk	7	7587	3.07	3.20	
At risk	10	127	4.17	3.54	4.89 ***
Not at risk	10	7214	2.80	3.13	

* Significant beyond .05 level

*** Significant beyond .001 level

Table 68

Comparison of mean school effort scores of
students who were pregnant vs. were not pregnant
(by grade level)

Evidence of Risk	Grade Level	N	Mean	SD	t
At risk	4	12	5.33	2.57	1.49
Not at risk	4	5985	3.89	3.37	
At risk	7	15	5.53	3.29	2.98 **
Not at risk	7	7606	3.07	3.20	
At risk	10	91	4.08	3.53	3.83 ***
Not at risk	10	7250	2.81	3.14	

** Significant beyond .01 level

*** Significant beyond .001 level

Table 69

Comparison of mean school effort scores of
students who sold drugs vs. did not sell drugs
(by grade level)

Evidence of Risk	Grade Level	N	Mean	SD	t
At risk	4	1	9.00	—	—
Not at risk	4	5996	3.89	3.37	
At risk	7	24	6.29	2.96	4.94 ***
Not at risk	7	7597	3.06	3.20	
At risk	10	93	5.20	4.21	7.38 ***
Not at risk	10	7248	2.79	3.12	

*** Significant beyond .001 level

Table 70

Comparison of mean school effort scores of
students who used drugs vs. students who did not use drugs
(by grade level)

Evidence of Risk	Grade Level	N	Mean	SD	t
At risk	4	19	6.42	3.67	3.28 **
Not at risk	4	5978	3.88	3.36	
At risk	7	110	5.41	3.87	7.75 ***
Not at risk	7	7511	3.04	3.18	
At risk	10	486	4.51	3.88	12.37 ***
Not at risk	10	6855	2.70	3.05	

** Significant beyond .01 level

*** Significant beyond .001 level

Table 71

Comparison of mean school effort scores of
students whose family used drugs vs. students whose family did not use drugs
(by grade level)

Evidence of Risk	Grade Level	N	Mean	SD	t
At risk	4	172	4.96	3.61	4.23 ***
Not at risk	4	5825	3.86	3.35	
At risk	7	230	4.47	3.68	6.47 ***
Not at risk	7	7391	3.03	3.17	
At risk	10	333	3.91	3.57	6.50 ***
Not at risk	10	7008	2.77	3.12	

*** Significant beyond .001 level

Table 72

Comparison of mean school effort scores of
students who used alcohol vs. students who did not use alcohol
(by grade level)

Evidence of Risk	Grade Level	N	Mean	SD	t
At risk	4	18	4.89	3.88	1.26
Not at risk	4	5979	3.89	3.36	
At risk	7	116	4.95	3.53	6.38 ***
Not at risk	7	7505	3.04	3.19	
At risk	10	830	4.09	3.69	12.43 ***
Not at risk	10	6511	2.66	3.03	

*** Significant beyond .001 level

Table 73

Comparison of mean school effort scores of
students whose parents were alcoholic vs. students whose parents were not alcoholic
(by grade level)

Evidence of Risk	Grade Level	N	Mean	SD	t
At risk	4	195	5.31	3.64	5.99 ***
Not at risk	4	5802	3.84	3.35	
At risk	7	246	4.96	3.98	9.44 ***
Not at risk	7	7375	3.01	3.15	
At risk	10	324	3.98	3.75	6.81 ***
Not at risk	10	7017	2.77	3.11	

*** Significant beyond .001 level

Table 74

Comparison of mean school effort scores of
students who were arrested vs. students who were not arrested
(by grade level)

Evidence of Risk	Grade Level	N	Mean	SD	t
At risk	4	16	6.38	4.21	2.96 **
Not at risk	4	5981	3.89	3.36	
At risk	7	63	5.84	3.63	6.92 ***
Not at risk	7	7558	3.05	3.19	
At risk	10	189	5.36	4.26	11.33 ***
Not at risk	10	7152	2.75	3.08	

** Significant beyond .01 level

*** Significant beyond .001 level

Table 75

Comparison of mean school effort scores of
students who were abused vs. students who were not abused
(by grade level)

Evidence of Risk	Grade Level	N	Mean	SD	t
At risk	4	132	6.14	3.55	7.81 ***
Not at risk	4	5865	3.84	3.34	
At risk	7	140	4.89	3.70	6.82 ***
Not at risk	7	7481	3.04	3.18	
At risk	10	133	4.50	3.63	6.21 ***
Not at risk	10	7208	2.79	3.13	

*** Significant beyond .001 level

Table 76

Comparison of mean school effort scores of
students who got low grades vs. students who did not get low grades
(by grade level)

Evidence of Risk	Grade Level	N	Mean	SD	t
At risk	4	475	6.14	3.92	15.50 ***
Not at risk	4	5522	3.70	3.24	
At risk	7	910	5.19	3.81	21.97 ***
Not at risk	7	6711	2.78	3.00	
At risk	10	1410	4.19	3.69	18.58 ***
Not at risk	10	5931	2.50	2.91	

*** Significant beyond .001 level

Table 77

Comparison of mean school effort scores of
students who failed courses vs. students who did not fail courses
(by grade level)

Evidence of Risk	Grade Level	N	Mean	SD	t
At risk	4	160	6.67	3.67	10.68 ***
Not at risk	4	5837	3.82	3.32	
At risk	7	504	5.30	3.73	16.47 ***
Not at risk	7	7117	2.91	3.10	
At risk	10	1195	4.05	3.63	14.91 ***
Not at risk	10	6146	2.58	2.99	

*** Significant beyond .001 level

Table 78

Comparison of mean school effort scores of
students who were overage in grade vs. students who were not overage
(by grade level)

Evidence of Risk	Grade Level	N	Mean	SD	t
At risk	4	927	5.46	3.78	15.77 ***
Not at risk	4	5070	3.60	3.20	
At risk	7	1196	4.92	3.66	22.43 ***
Not at risk	7	6425	2.73	2.98	
At risk	10	1334	4.11	3.71	16.91 ***
Not at risk	10	6007	2.53	2.93	

*** Significant beyond .001 level

Table 79

Comparison of mean school effort scores of
students who were retained in grade vs. students who were not retained
(by grade level)

Evidence of Risk	Grade Level	N	Mean	SD	t
At risk	4	877	5.86	3.78	19.34 ***
Not at risk	4	5120	3.55	3.17	
At risk	7	1094	5.10	3.65	23.42 ***
Not at risk	7	6527	2.74	2.99	
At risk	10	1069	4.66	3.72	21.25 ***
Not at risk	10	6272	2.51	2.93	

*** Significant beyond .001 level

Table 80

Comparison of mean school effort scores of
students with excessive absences vs. students without excessive absences
(by grade level)

Evidence of Risk	Grade Level	N	Mean	SD	t
At risk	4	282	4.40	3.67	2.59 **
Not at risk	4	5715	3.87	3.35	
At risk	7	454	4.23	3.55	8.01 ***
Not at risk	7	7167	3.00	3.16	
At risk	10	723	3.89	2.70	9.67 ***
Not at risk	10	6618	2.71	3.06	

** Significant beyond .01 level

*** Significant beyond .001 level

Table 81

Comparison of mean school effort scores of
students with low self-esteem vs. students with high self-esteem
(by grade level)

Evidence of Risk	Grade Level	N	Mean	SD	t
At risk	4	708	5.86	3.90	16.94 ***
Not at risk	4	5289	3.63	3.20	
At risk	7	932	4.40	3.76	13.72 ***
Not at risk	7	6689	2.89	3.07	
At risk	10	977	3.96	3.66	12.27 ***
Not at risk	10	6364	2.65	3.02	

*** Significant beyond .001 level

Table 82

Comparison of mean school effort scores of
students referred to special education vs. students not referred
(by grade level)

Evidence of Risk	Grade Level	N	Mean	SD	t
At risk	4	847	8.74	2.84	55.82 ***
Not at risk	4	5150	3.09	2.71	
At risk	7	1003	7.70	3.35	59.51 ***
Not at risk	7	6618	2.37	2.52	
At risk	10	734	7.93	3.29	55.11 ***
Not at risk	10	6607	2.25	2.57	

*** Significant beyond .001 level

Table 83

Comparison of mean school effort scores of
students with low reading scores vs. students without low reading scores
(by grade level)

Evidence of Risk	Grade Level	N	Mean	SD	t
At risk	4	590	6.82	3.64	23.26 ***
Not at risk	4	5407	3.57	3.17	
At risk	7	668	6.02	3.71	26.00 ***
Not at risk	7	6953	2.79	3.00	
At risk	10	733	4.86	3.74	18.94 ***
Not at risk	10	6608	2.60	2.99	

*** Significant beyond .001 level

Table 84

Comparison of mean school effort scores of students whose parent was sick in the last year vs. students whose parent was not sick last year (by grade level)

Evidence of Risk	Grade Level	N	Mean	SD	t
At risk	4	241	4.41	3.56	2.43 *
Not at risk	4	5756	3.87	3.36	
At risk	7	293	4.13	3.27	5.76 ***
Not at risk	7	7328	3.03	3.19	
At risk	10	332	3.60	3.51	4.60 ***
Not at risk	10	7009	2.79	3.12	

* Significant beyond .05 level

*** Significant beyond .001 level

Table 85

Comparison of mean school effort scores of students whose parent died in last year vs. students whose parent did not die last year (by grade level)

Evidence of Risk	Grade Level	N	Mean	SD	t
At risk	4	53	4.28	3.60	.85
Not at risk	4	5944	3.89	3.63	
At risk	7	70	4.24	3.36	3.08 **
Not at risk	7	7551	3.06	3.20	
At risk	10	69	4.36	4.13	4.09 ***
Not at risk	10	7272	2.81	3.13	

** Significant beyond .01 level

*** Significant beyond .001 level

Table 86

Comparison of mean school effort scores of students whose parent lost job in last year vs. students whose parent did not lose job in last year (by grade level)

Evidence of Risk	Grade Level	N	Mean	SD	t
At risk	4	291	4.47	3.47	2.89 **
Not at risk	4	5706	3.86	3.36	
At risk	7	275	4.23	3.50	6.12 ***
Not at risk	7	7346	3.03	3.18	
At risk	10	286	3.85	3.71	5.67 ***
Not at risk	10	7055	2.78	3.12	

** Significant beyond .01 level

*** Significant beyond .001 level

Table 87

Comparison of mean school effort scores of students whose friend died in last year vs. students whose friend did not die in last year (by grade level)

Evidence of Risk	Grade Level	N	Mean	SD	t
At risk	4	143	5.01	3.43	4.04 ***
Not at risk	4	5854	3.86	3.36	
At risk	7	309	3.36	2.95	1.61
Not at risk	7	7312	3.06	3.21	
At risk	10	513	3.76	3.67	7.03 ***
Not at risk	10	6828	2.75	3.09	

*** Significant beyond .001 level

Table 88

Comparison of mean school effort scores of
students who were ill in last year vs. students who were not ill last year
(by grade level)

Evidence of Risk	Grade Level	N	Mean	SD	t
At risk	4	176	4.95	3.49	4.26 ***
Not at risk	4	5821	3.86	3.36	
At risk	7	226	4.23	3.39	5.53 ***
Not at risk	7	7395	3.04	3.19	
At risk	10	278	4.44	4.02	8.76 ***
Not at risk	10	7063	2.76	3.09	

*** Significant beyond .001 level

Table 89

Comparison of mean school effort scores of
students whose sibling died in last year vs. students whose sibling did not die
(by grade level)

Evidence of Risk	Grade Level	N	Mean	SD	t
At risk	4	60	5.48	3.70	3.69 ***
Not at risk	4	5937	3.88	3.36	
At risk	7	31	3.84	3.21	1.34
Not at risk	7	7590	3.07	3.20	
At risk	10	26	4.92	3.60	3.41 ***
Not at risk	10	7315	2.81	3.14	

*** Significant beyond .001 level

Table 90

Comparison of mean school effort scores of students whose father holds low-level job vs. students whose father did not hold low-level job (by grade level)

Evidence of Risk	Grade Level	N	Mean	SD	t
At risk	4	1197	4.44	3.50	6.32 ***
Not at risk	4	4800	3.76	3.32	
At risk	7	1266	3.86	3.60	9.61 ***
Not at risk	7	6355	2.92	3.09	
At risk	10	1108	3.47	3.31	7.50 ***
Not at risk	10	6233	2.71	3.10	

*** Significant beyond .001 level

Table 91

Comparison of mean school effort scores of students whose father is not a high school graduate vs. students whose father is a graduate (by grade level)

Evidence of Risk	Grade Level	N	Mean	SD	t
At risk	4	372	5.24	3.53	8.05 ***
Not at risk	4	5625	3.80	3.33	
At risk	7	492	4.04	3.81	6.95 ***
Not at risk	7	7129	3.01	3.14	
At risk	10	772	3.67	3.40	7.92 ***
Not at risk	10	6569	2.72	3.10	

*** Significant beyond .001 level

Table 92

Comparison of mean school effort scores of students whose mother holds low-level job vs. students whose mother does not hold low-level job (by grade level)

Evidence of Risk	Grade Level	N	Mean	SD	t
At risk	4	1375	4.41	3.50	6.52 ***
Not at risk	4	4622	3.74	3.31	
At risk	7	1522	3.46	3.47	5.32 ***
Not at risk	7	6099	2.98	3.12	
At risk	10	1219	3.29	3.32	5.69 ***
Not at risk	10	6122	2.73	3.10	

*** Significant beyond .001 level

Table 93

Comparison of mean school effort scores of students whose mother is not a high school graduate vs. students whose mother is a graduate (by grade level)

Evidence of Risk	Grade Level	N	Mean	SD	t
At risk	4	439	5.18	3.48	8.40 ***
Not at risk	4	5558	3.79	3.34	
At risk	7	566	4.02	3.74	7.39 ***
Not at risk	7	7055	3.00	3.14	
At risk	10	756	3.95	3.60	10.46 ***
Not at risk	10	6585	2.69	3.07	

*** Significant beyond .001 level

Table 94

Comparison of mean school effort scores of students whose
parents' attitude is negative vs. students whose parents' attitude is positive
(by grade level)

Evidence of Risk	Grade Level	N	Mean	SD	t
At risk	4	305	5.80	3.71	10.25 ***
Not at risk	4	5692	3.79	3.32	
At risk	7	428	4.33	3.84	8.40 ***
Not at risk	7	7193	3.00	3.14	
At risk	10	324	3.58	3.35	4.46 ***
Not at risk	10	7017	2.79	3.13	

*** Significant beyond .001 level

Table 95

Comparison of mean school effort scores of students whose
parents' language is not English vs. students whose parents' language is English
(by grade level)

Evidence of Risk	Grade Level	N	Mean	SD	t
At risk	4	238	5.04	3.85	5.39 ***
Not at risk	4	5759	3.84	3.34	
At risk	7	342	4.19	3.80	6.65 ***
Not at risk	7	7279	3.02	3.16	
At risk	10	457	4.00	3.35	8.29 ***
Not at risk	10	6884	2.74	3.12	

*** Significant beyond .001 level

Table 96

Comparison of mean school effort scores of students who
live in broken home vs. students who live with real parents
(by grade level)

Evidence of Risk	Grade Level	N	Mean	SD	t
At risk	4	2118	4.25	3.57	6.08 ***
Not at risk	4	3879	3.70	3.23	
At risk	7	2600	3.47	3.29	7.78 ***
Not at risk	7	5021	2.87	3.13	
At risk	10	2561	3.16	3.35	6.79 ***
Not at risk	10	4780	2.64	3.02	

*** Significant beyond .001 level

Table 97

Comparison of mean school effort scores of
students who have moved frequently vs. students who have not moved frequently
(by grade level)

Evidence of Risk	Grade Level	N	Mean	SD	t
At risk	4	1258	4.17	3.40	3.26 ***
Not at risk	4	4739	3.82	3.35	
At risk	7	1126	3.40	3.23	3.76 ***
Not at risk	7	6495	3.01	3.19	
At risk	10	985	3.34	3.37	5.54 ***
Not at risk	10	6356	2.74	3.10	

*** Significant beyond .001 level

Table 98

Comparison of mean school effort scores of students who have changed schools frequently vs. students who have not changed schools frequently (by grade level)

Evidence of Risk	Grade Level	N	Mean	SD	t
At risk	4	1235	4.00	3.30	1.24
Not at risk	4	4762	3.86	3.38	
At risk	7	2397	3.43	3.35	6.71 ***
Not at risk	7	5224	2.91	3.11	
At risk	10	1356	3.26	3.21	5.69 ***
Not at risk	10	5985	2.72	3.13	

*** Significant beyond .001 level

Table 99

Comparison of mean school effort scores of students whose parents were divorced in last year vs. students whose parents were not divorced in last year (by grade level)

Evidence of Risk	Grade Level	N	Mean	SD	t
At risk	4	512	4.05	3.35	1.12
Not at risk	4	5485	3.88	3.37	
At risk	7	480	3.68	3.58	4.30 ***
Not at risk	7	7141	3.03	3.17	
At risk	10	445	3.42	3.75	4.18 ***
Not at risk	10	6896	2.78	3.10	

*** Significant .001 level